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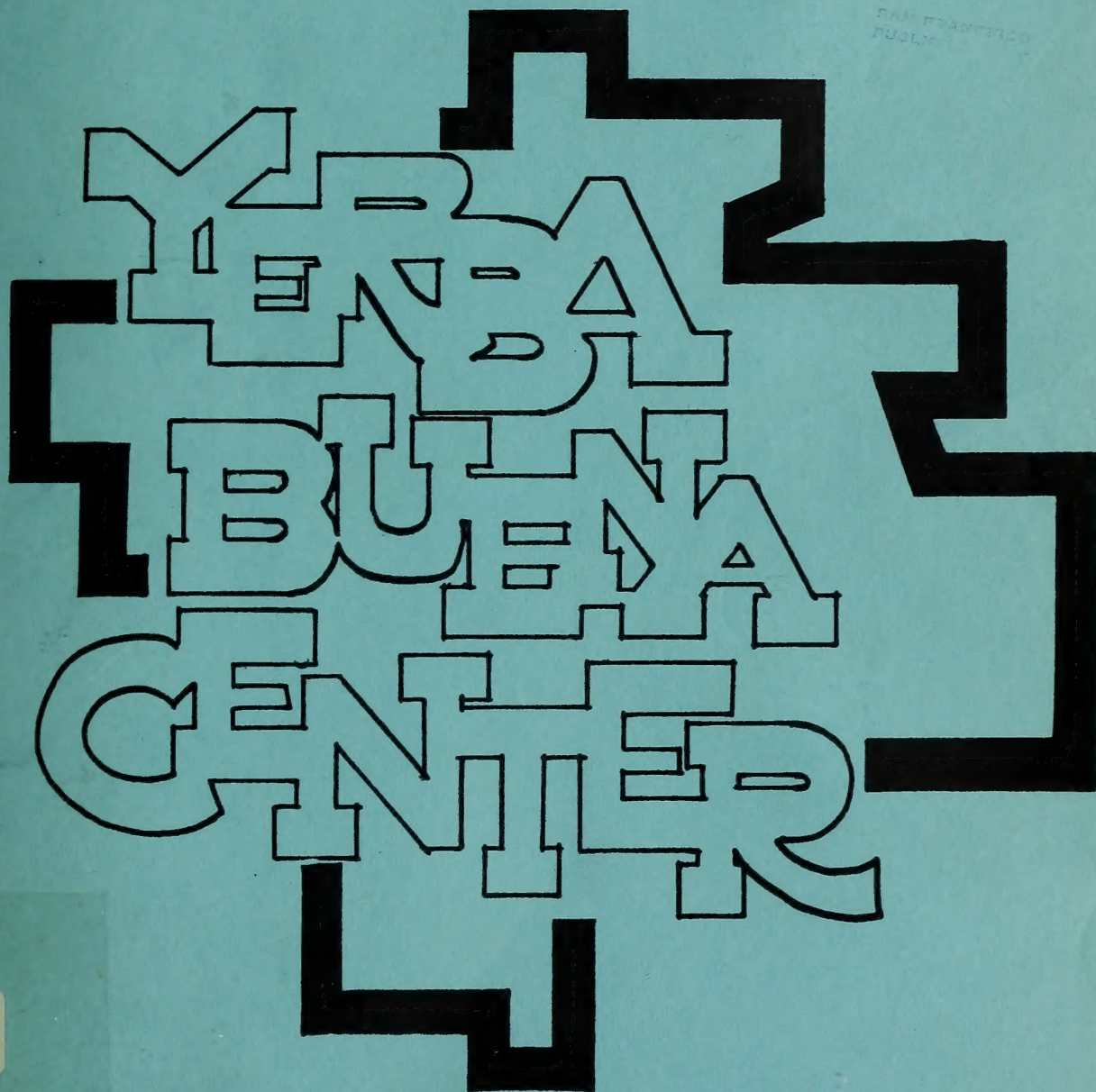
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ENVIRONMENTAL IMPACT STATEMENT

OCT 29 1974

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DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

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IN REPLY REFER TO:

9.1PM-C

To Individuals and Agencies

Regarding: Final Environmental Impact Statement
Yerba Buena Center
Urban Renewal Project (Calif. R-59)
San Francisco, California

Ladies and Gentlemen:

Enclosed is the Final Environmental Impact Statement for the Yerba Buena Center Urban Renewal Project in San Francisco, California, for your review and comment in accordance with Section 102(2)(c) of P.L. 91-190 (U.S.C. Section 4332) and implementing Federal regulations. It is proposed that HUD approve two changes to the original Urban Renewal Plan.

A Draft EIS on this same project was circulated to individuals and agencies on March 21, 1974. Many comments were received. The Final EIS is composed of two parts. Part I incorporates revisions made to the Draft EIS. Part II is composed of the comments received on the Draft EIS and HUD responses. This approach is to permit all parties to review all HUD comments and is in lieu of individual communications to respondents.

The months between the publication of the Draft and Final Statements were spent working with the City of San Francisco, the Redevelopment Agency and other interested parties to develop adequate measures for mitigating adverse impacts identified in the Draft Statement and in comments received in response to that Statement. These measures are described in the appropriate sections throughout the text.

Your comments are requested on the enclosed Final EIS within thirty (30) days of the date on this transmittal. Any comment received will be carefully considered in refining the plans for the proposed Yerba Buena Center Project.

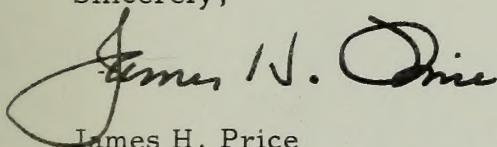
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Copies of this Final Environmental Impact Statement are available for reading by the public in the information centers of the San Francisco Area Office, the HUD Regional Office at 450 Golden Gate Avenue, San Francisco, and the Main Library in San Francisco's Civic Center.

Your comments on this Final Environmental Impact Statement should be addressed directly to:

Mr. James P. Jaquet
Program Manager, Area C
Operations Division
U.S. Department of Housing and Urban Development
One Embarcadero Center, Suite 1600
San Francisco, California 94111

Sincerely,

A handwritten signature in dark ink, appearing to read "James H. Price". The signature is fluid and cursive, with the first name "James" being more prominent and the last name "Price" following in a similar style.

James H. Price
Area Director

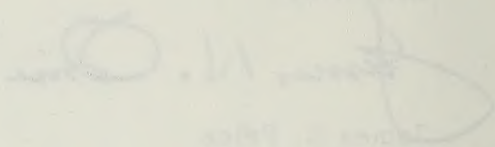
Enclosure

Copies of this Final Environmental Impact Statement are available for review by the public in the information center of the San Francisco Area Office, the HUD Regional Office at 475 California Street, San Francisco, and the Main Library in San Francisco's Main Office.

For comments on this Final Environmental Impact Statement, please address directly to:

Mr. James E. Hester
Regional Manager, Area C
Urban Block Division
U.S. Department of Housing and Urban Development
One Embarcadero Center, Suite 1000
San Francisco, California 94111

Sincerely,



James E. Hester
Area Director

Enclosure

Final Environmental Impact Statement
Section 102(2)(C) Environmental Statement Clearance
HUD-RO9-EIS-74-1F

for

Yerba Buena Center
Redevelopment Area
Project No. Calif. R-59

Applicant Agency: San Francisco Redevelopment Agency
939 Ellis Street
San Francisco, California 94109

Funding Agency: Department of Housing and Urban
Development
San Francisco Area Office
One Embarcadero Center, Suite 1600
San Francisco, California 94111

Prepared by:

Department of Housing and Urban
Development, Region IX
October 1974

REF 711.4097 F489

Final environmental
impact statement ...
1974.

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I. Purpose and Methodology

On May 21, 1973, the San Francisco Redevelopment Agency submitted to the Department of Housing and Urban Development (HUD) a series of proposed changes to the Urban Renewal Plan for the Yerba Buena Center Redevelopment Area.

In addition to these recently proposed changes, Plan Change I submitted to HUD in 1971 is awaiting final HUD action.¹

It was the determination of HUD that approval of these proposed changes, taken cumulatively, would constitute a "major federal action" under the intent of Section 102(2)(c) of the National Environmental Policy Act (NEPA) of 1969, and, thus, would require a full Environmental Impact Statement (EIS) prior to HUD's final action.

It was further determined that HUD should prepare the EIS on the entire project, in accordance with HUD's environmental guidelines, as published in the Federal Register of July 28, 1973:

Retroactivity. To the maximum extent practicable, environmental clearance shall be required for uncompleted projects which have never gone through an environmental clearance under NEPA, at such time as a subsequent significant HUD action, such as the next stage of program approval or approval of a major amendatory, is proposed. Where it is not practicable to reassess the basic course of action, major attention should be given to measures, which, given the stage of project completion, may reduce adverse environmental impact. It is also important in taking further action that account be taken of environmental consequences not fully evaluated at the outset of the project.²

The purpose of HUD's EIS is, therefore, twofold. First, to assess the environmental impacts of the proposed plan changes as a determining factor in HUD's decision for approval or disapproval; and, secondly, to retroactively assess the entire project to determine what, if any, additional steps should be taken at this time to minimize any identified adverse environmental impacts.

1 Refer to Section III.E. of this Statement for a description of the Proposed Changes.

2 Federal Register, Volume 38, No. 137, Part III, July 18, 1973, Chapter 2, 5.a.(4).

The EIS study team consists of twenty-two HUD generalists, planners, and technical specialists, with the assistance of the Environmental Protection Agency (EPA) and URS Research Company in the field of air quality and a statistical methodologist from the University of California at Berkeley in the area of economic projections. The use of existing data and reports has been supplemented through interviews, field inspections and other primary research.

The first section of this Statement presents a general description of the Yerba Buena Center Redevelopment Project, its history, proposals, and current status. In an effort to reduce the Statement's bulk and internal duplication, general descriptive information is not repeated in each of the Impact Sections. However, footnotes have been provided to facilitate cross-references where these appear helpful.

Environmental impacts of the Project and its proposed Plan Changes have been gauged in comparison to the existing characteristics of the site and the City, rather than to those characteristics which existed at the time of original Project approval in December 1966. Since the conditions of 1966 cannot be recaptured, it appears futile to use those as a standard of comparison.

This Statement considers the probable environmental impact of all proposed Project activities. Although the argument has been made that a major portion of the office space would be constructed elsewhere in the City if Yerba Buena Center were not to proceed, that does not justify ignoring its impacts, both positive and negative. A major purpose of an urban renewal project is to provide planned direction for development in a locality, and to minimize the negative and maximize the positive impacts of that growth. Therefore, the full impacts of the proposed office space are considered throughout this Statement as a new activity, in order to determine what, if any, additional direction or guidance is needed to mitigate against any adverse impacts of this growth.

An attempt has been made to reduce the potentially speculative nature of an EIS by establishing objective standards of measurement, where possible, and by limiting prognosis to those areas where adequate data exists to substantiate projected trends.

Comments were solicited from interested groups and individuals prior to the development of the study design, and in response to the Draft Statement, which was published in February 1974 and available for comment for a period of 60 days. This Final Statement incorporates and responds to the comments received. It includes an account of measures which will be taken to mitigate against identified negative impacts, and states the recommended HUD action. HUD will respond to the request for approval of the Plan Changes 30 days from the date of distribution of this Statement.

II. Description of Urban Renewal Program

The Federal Urban Renewal Program was established by Title I of the Housing Act of 1949 to assist localities in the rejuvenation of physically blighted or deteriorated areas. Eligible activities under this program include planning for reuse of land; acquisition of property; relocation of residents into decent, safe and sanitary housing; relocation of business firms; rehabilitation of structures that are capable of rehabilitation and will conform to the land use plan; and demolition and site improvements necessary for the preparation of cleared land for resale to private or public redevelopers.

Program applicants may be either local governing bodies or redevelopment agencies, as authorized by State enabling legislation. Initial applications are made to the Department of Housing and Urban Development (HUD), in accordance with legislative criteria and Federal regulations as contained in HUD's Urban Renewal Handbook (RHA 7200 through RHA 7228). Upon approval by HUD, Federal grant funds are reserved and a survey and planning advance is made.

During this planning phase, buildings and social needs are surveyed and an Urban Renewal Plan is prepared. This Plan, when adopted by the local governing body after necessary public hearings, becomes the governing document with regard to acquisition, demolition, land use and building controls for all new development and rehabilitation in the project area.

Upon HUD approval of the locally adopted Urban Renewal Plan, a budget, financing plan, and legal contract are signed by HUD and the Local Public Agency (LPA) committing Federal funds to assist in the project. The amount of Federal funds required is determined in the following manner:

$$\begin{array}{rcl} & \text{Gross Project Costs (all estimated project expenditures)} & \\ - & \text{Disposition Proceeds (estimated money to be earned from} & \\ & \text{the resale of prepared land)} & \\ = & \text{Net Project Costs (expenditures not covered by land proceeds)} & \\ & \underline{\times 2/3} & \text{(eligible Federal share of Net Project Costs)} \\ = & \text{Federal Grant} & \end{array}$$

The Gross Project Cost consists of all expenditures made by an LPA for a given urban renewal project. The net project cost is the gross cost less proceeds from resale of land. The eligible Federal grant is two thirds of the net project cost. The remaining one-third share of the net project cost must be provided locally, either in cash, or through certain public improvements or supporting facilities known as non-cash credits.

The LPA is authorized by HUD under the Contract for Loan and Grant to secure a loan adequate to cover the initial cost of acquisition, site preparation, relocation, interest and administration. As land is prepared and sold, the proceeds are used, in conjunction with the Federal grant, to repay the outstanding loan. Financial settlement is made at the completion of the project when all LPA activities are completed and all land has been sold.

III. Project Background
and
General Description

A. Location and Size

The Yerba Buena Center Redevelopment Area encompasses 87.3 acres of land situated to the southeast of San Francisco's financial and downtown retail districts in the area known locally as the "South of Market."³ It consists of 3 entire blocks and portions of 10 adjacent blocks generally bounded by Market Street to the northeast; Fifth Street to the southwest; Harrison Street and the James Lick Freeway to the southeast; and Hawthorne, Second and New Montgomery Streets to the northeast.⁴

B. Background Chronology

The South of Market area was one of the earliest to be developed within the present boundaries of San Francisco. Building in the area began shortly after Jasper O'Farrell first platted the area in 1847. Largely destroyed by the fires resulting from the 1906 earthquake, the area was rebuilt in a mixture of industrial, commercial, warehousing, residential and hotel uses.

In September 1921, the Board of Supervisors of San Francisco (hereafter the "Board") passed its first zoning ordinance which designated the South of Market area for commercial and light industrial uses. Although there was a slight commercial and industrial building boom in the 1920's, development was minimal during the 1930's and the 1940's. In April 1953, the Board designated a portion of the South of Market Area as Redevelopment Area D (refer to Exhibit 1). Following Federal rejection of an application for renewal funds in September 1958, the Area was de-designated as a blighted area in order to encourage private development. In the ensuing years, private developers began assembling land parcels, which resulted in the displacement of approximately 500 persons and the demolition of ten hotels. By Board Resolution No. 782-61 adopted December 11, 1961, Area D was re-designated as a blighted area.

In October 1962, the San Francisco Redevelopment Agency (hereafter the "Agency") received a grant for survey and planning activities from HUD to plan for the redevelopment of Area D-1, now known as the Yerba Buena Center Redevelopment Area (YBC).

3 - As used in this text, "South of Market" refers to a 66-block area generally bounded by Market Street, The Embarcadero, Tenth Street and China Basin Creek.

4 - Refer to Appendix A for legal description of project boundaries.

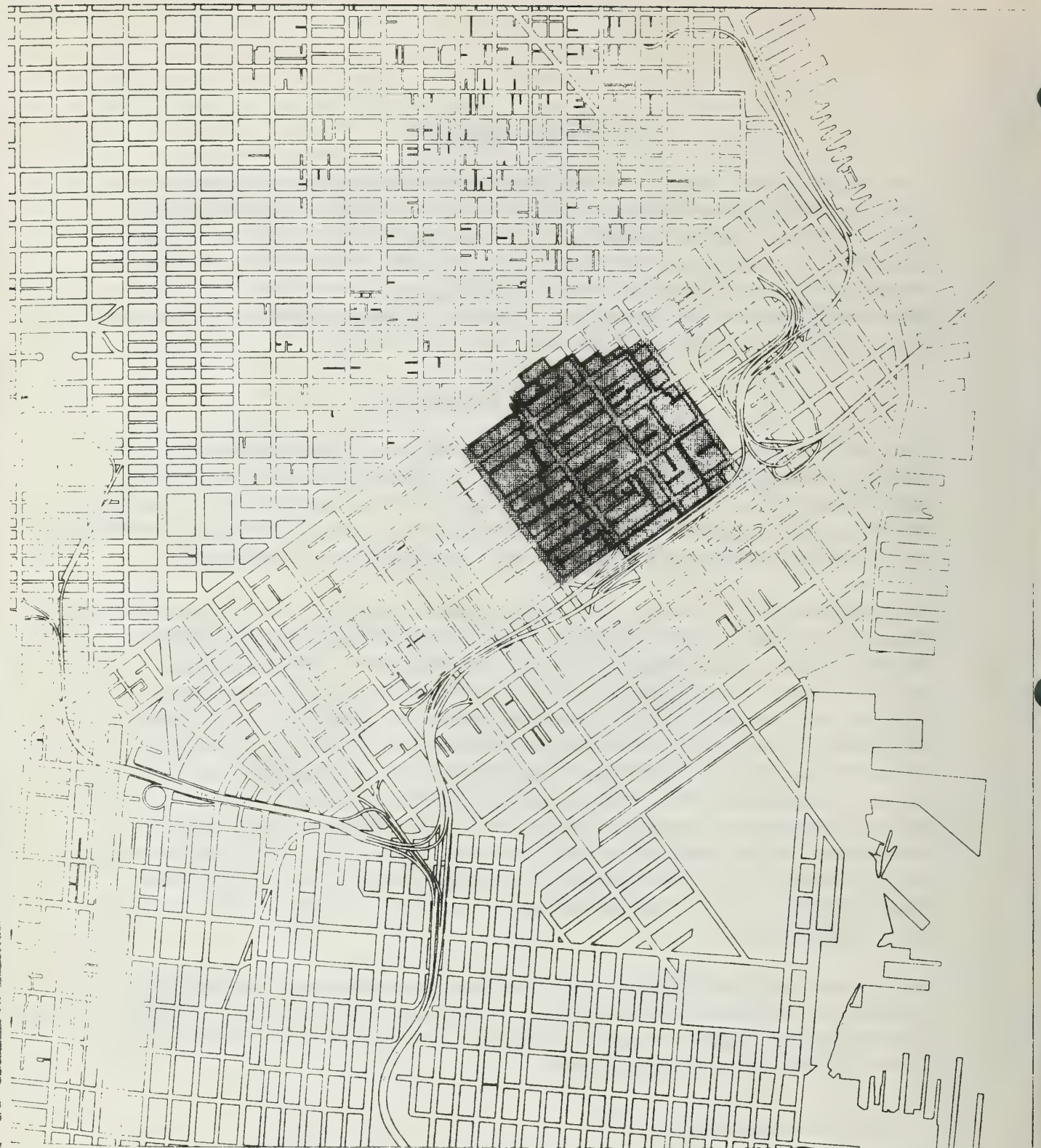


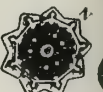
EXHIBIT 1

 REDEVELOPMENT AREA
 PROJECT AREA BOUNDARY

LOCATION MAP

SOUTH OF MARKET REDEVELOPMENT PROJECT AREA D-1

LIVINGSTON AND BLAYNEY
CITY AND REGIONAL PLANNERS



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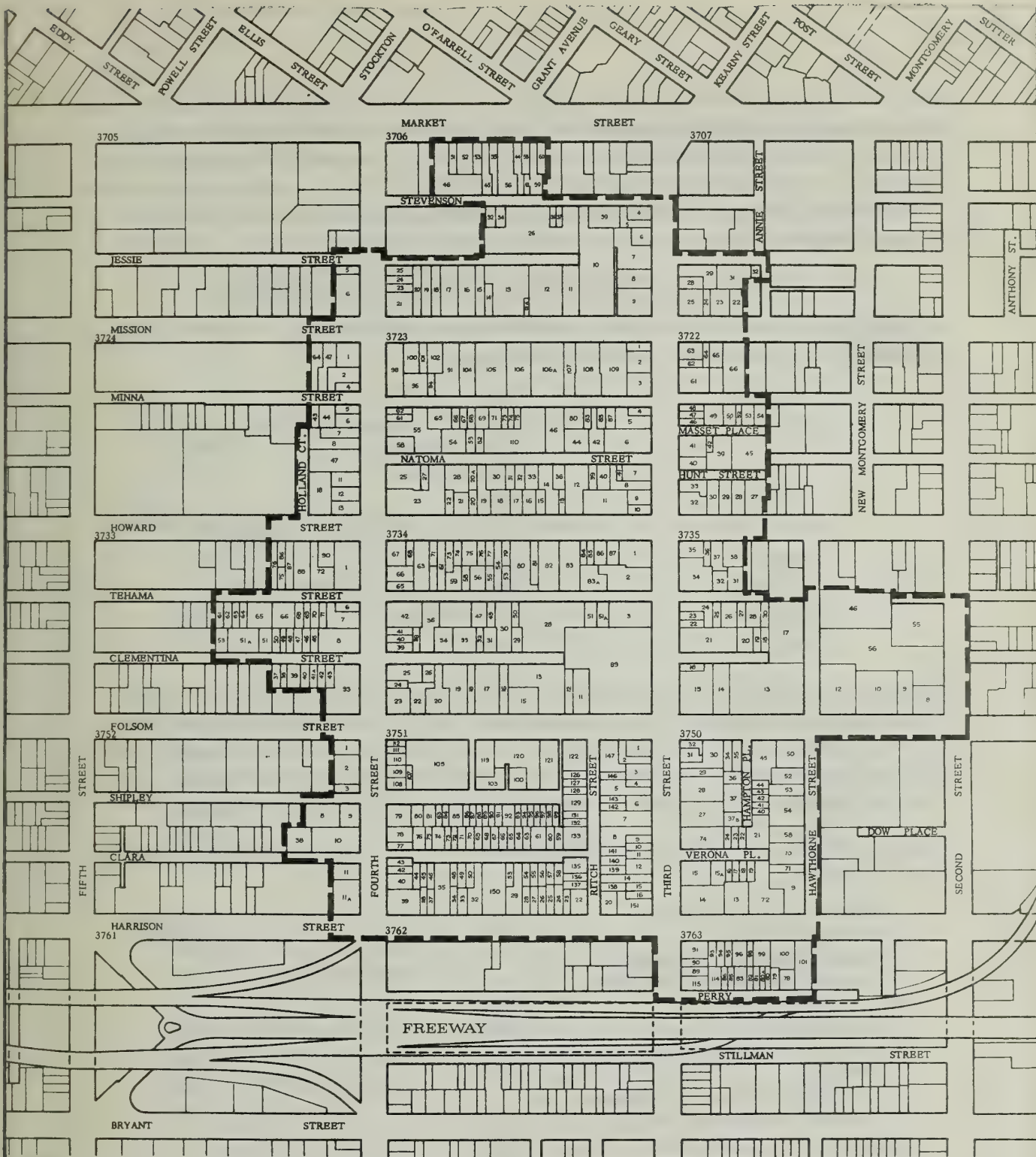


EXHIBIT 2

YERBA BUENA CENTER

REDEVELOPMENT PROJECT AREA D-1

PROJECT AREA BOUNDARIES

- PROJECT AREA BOUNDARY
- 3700 ASSESSOR'S BLOCK NUMBER
- 100 LOT NUMBER

SAN FRANCISCO REDEVELOPMENT AGENCY

0 FEET 200
JULY 1971



The Part I Application for Loan and Grant under the Urban Renewal Program was submitted to HUD in December 1964. Following HUD approval of the Part I, a Part II application was developed and approved by the Agency and the Board, and submitted to HUD in April 1966. These applications provide a description of the Project Area as it existed prior to the initiation of the Urban Renewal Plan.

C. Project Area Composition - Prior to Redevelopment

By the mid-1960's, the Project area was wholly urbanized. Following is a breakdown of pre-Redevelopment land uses:

<u># Acres</u>	<u>Uses</u>
30.8	Streets, alleys, and other public rights-of-way
3.3	Residential
6.3	Hotels
28.9	Other commercial, including approx. 22.5 acres in parking lots
14.8	Industrial
1.8	Public and institutional
<u>1.4</u>	Unimproved
87.3	TOTAL

There was a total of 404 structures in the project area, of which 82 were residential and 322 were non-residential. A 1963 field survey sponsored by the Agency and the Department of Public Works found that, based upon City code standards, 240 of these structures were substandard to a degree warranting clearance, and 63 others had serious physical deficiencies.⁵

Approximately 586 firms were engaged in private enterprise in the Project Area as follows:

Contract construction	15
Manufacturing	104
Transportation, communication, & utility service	7
Wholesale trade	104
Retail trade	144
Finance, insurance & real estate	12
Services (hotels, parking motion pictures, etc.)	187
Auxiliary warehouses	<u>13</u>
	586 ⁶

5 - E. M. Schaffran & Company, Relocation Survey Report, December 1963.

6 - Part II Application for Loan & Grant, R 309, Exhibit C, "Report on the Redevelopment Plan," prepared by the SF Redevelopment Agency, December 3, 1965, and approved by the Board of Supervisors, April 1966. These applications were the subject of extensive HUD reviews and field inspections at the time of submittal.

Of these firms, 86% were tenants and 60% had been in their current locations for less than 10 years.

There were 3,165 single persons and 253 families living in the area in 1963.⁷ A survey conducted at that time by E. M. Schaffran & Company⁸ revealed the following characteristics:

	<u>Single (93%) Individuals</u>	<u>Families (7%) (Head of Household)</u>
<u>Sex</u>		
Male	94%	85%
Female	6%	15%
<u>Race</u>		
Caucasian	88%	31%
Black	7%	45%
Spanish Speaking	2%	6%
Oriental	1%	12%
Other	2%	6%
<u>Age</u>		
over 75	6%	1%
66-75	17%	6%
56-65	24%	15%
46-55	28%	27%
31-45	20%	34%
0-30	5%	17%
<u>Income</u>		
\$99/per mo. or less	24%	9%
\$100 - \$199 per/mo.	33%	15%
\$200 - \$299 per/mo.	15%	17%
\$300 - \$399 per/mo.	13%	15%
\$400 - \$499 per/mo.	7%	16%
\$500 - \$599 per/mo.	4%	12%
\$600 and over	4%	16%

7 - The Victorian Hotel was later eliminated from the project area, reducing the single household population from 3,165 to 3,050 and the family households from 253 to 250.

8 - Based upon interviews of 96% of the families and 83% of the individuals.

<u>Source of Income</u>	<u>Single Individuals</u>	<u>Families</u>
Self-employed	2%	8%
Employed by others	41%	57%
Retirement income	25%	6%
Public Assistance	25%	15%
Current or past military	4%	1%
Other	3%	13%
<u>Residence</u>		
Hotel rooms or domitory	97%	41%
Flats or apartments	3%	57%
Single-family homes	*	2%

* Less than 1% (or 3 individuals) lived in single family homes.

In summary, the vast majority of persons living in the YBC Project area prior to Redevelopment were single (93%), male (93%), Caucasian (87%), and over the age of 45 (68%). The majority of the families were employed (65%) receiving an income of less than \$400 per month (56%) and living in flats or apartments (56%). The majority of the single individuals were unemployed (57%) receiving an income of less than \$200 per month (57%), and living in hotel rooms or dormitories (97%).

Incidences of disease, crime and fire in the area were disproportionately high in comparison to the city-wide rates.

Incidences per 1,000 Population-1964⁹

	<u>San Francisco</u>	<u>YBC Area</u>
Tuberculosis	.67	5.53
Veneral Disease	7.70	23.64
Arrests for Drunkenness	32.24	998.66
Arrests for Major Crimes ¹⁰	68.63	341.65
Arrests for Minor Crimes	29.29	139.28
Fires	.26	.96
Fire Department Calls	.60	1.59

In 1965, a Redevelopment Plan was developed for the Yerba Buena Center Urban Renewal area.

9 - E. M. Schaffran

10- The following are considered major crimes: manslaughter, rape, robbery, aggravated assault, burglary, grand theft, petty theft, and auto theft.

D. Project Area Composition - Current Status

On December 2, 1966, HUD signed a Loan and Grant Contract with the Agency authorizing the commencement of Urban Renewal project execution activities, including property acquisition, relocation of households and businesses, demolition of structures, installation of site improvements, and disposition of property for redevelopment in accordance with the requirements of the Urban Renewal Plan. As of June 30, 1974, HUD had contracted with the Agency for a total of \$44,991,239 in federal funds toward the Project's estimated net project cost of \$91,279,448.¹¹

As a result of the completed activities, the composition of the project area is substantially changed from its 1964-66 characteristics. As of June 30, 1974, planned activities had been completed to the following extent:

Project Status June 30, 1974			
	<u>Redevelopment Activities Planned</u>	<u>Activities Completed as of June 30, 1974</u>	<u>% Completed</u>
a. Acquisition			
By Acre	43.85	43.15	98.4%
By Cost	\$38,623,000.	\$38,383,841	99.4%
b. Demolition & Site clearance			
By Structure	344 bldgs.	285 bldgs	82.9%
By Cost	\$1,975,050	\$1,191,776	60.3%
c. Relocation Workload			
Families	197	177	92.2%
Individuals	2044	1744	85.3%
Businesses	586	456	77.8%

11 - Refer to Section II of this Statement for the definition of "Net Project Cost: " this figure does not include the cost of construction following the conveyance of prepared renewal land, except for those portions of the public construction which are credited as local grants-in-aid.

d.	Project Improvements				
	By Item I				
	Cost	\$360,861	\$92,498	Expended	25.6%
			\$150,675	Encumbered	41.8%
e.	Land Disposition				
	By Acre	47.98	2.71 acres		5.6%
	By Proceeds	\$22,834,053	\$587,325		2.6%
f.	Property Rehabilitation				
	By structure	42 bldgs.	26 bldgs.*		61.9%
g.	Local Grants-in-Aid				
	By Credited Amount		\$1,231,911 cash		
	\$53,532,964		<u>9,753</u> non cash		
			\$1,241,664 total		2.3%

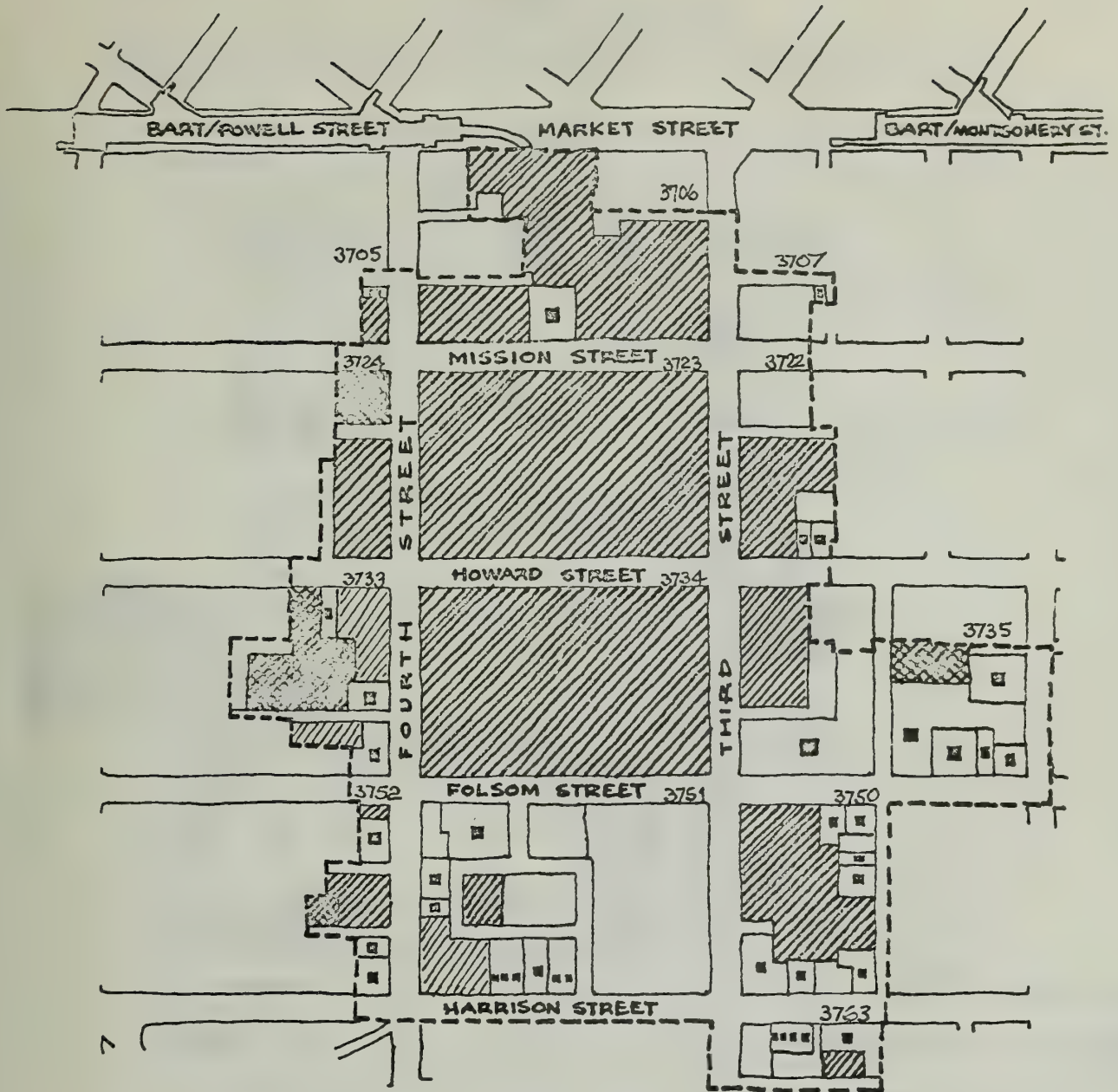
*Seven buildings have been rehabilitated to Property Rehabilitation Standards; nineteen have been rehabilitated to code standards only.

Completed new construction in the area involves two rights-of-way and three sites, including





- 276 units of public housing for the elderly in Clementina Towers (Block No. 3733);
- the expansion of the Fifth and Mission Street parking garage to include 316 additional parking spaces (Block No. 3724); and
- an eleven-story office building at 55 Hawthorne Street (Block No. 3735), completed under the owner participation provisions of California's Community Redevelopment Law.

In addition, construction is virtually complete on the 258-unit elderly subsidized housing project sponsored by the Salvation Army (Block No. 3752), a portion of which extends into the project area. A total of 8 parcels have been conveyed by the Agency to developers, and additional redevelopers have been selected for several other parcels, as shown on Exhibits 3 and 4.

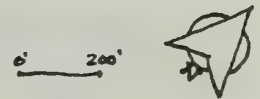
Relocation activities have greatly reduced the number of residents in the Project area. However, the characteristics of the current population are essentially the same as those of the original population.



REDEVELOPMENT STATUS

-  CONSTRUCTION COMPLETE/UNDER WAY
-  REDEVELOPER SELECTED/DESIGNATED
-  OWNER RETENTION/REHABILITATION
-  OTHER PARCELS

3706 ASSESSOR'S BLOCK NUMBER

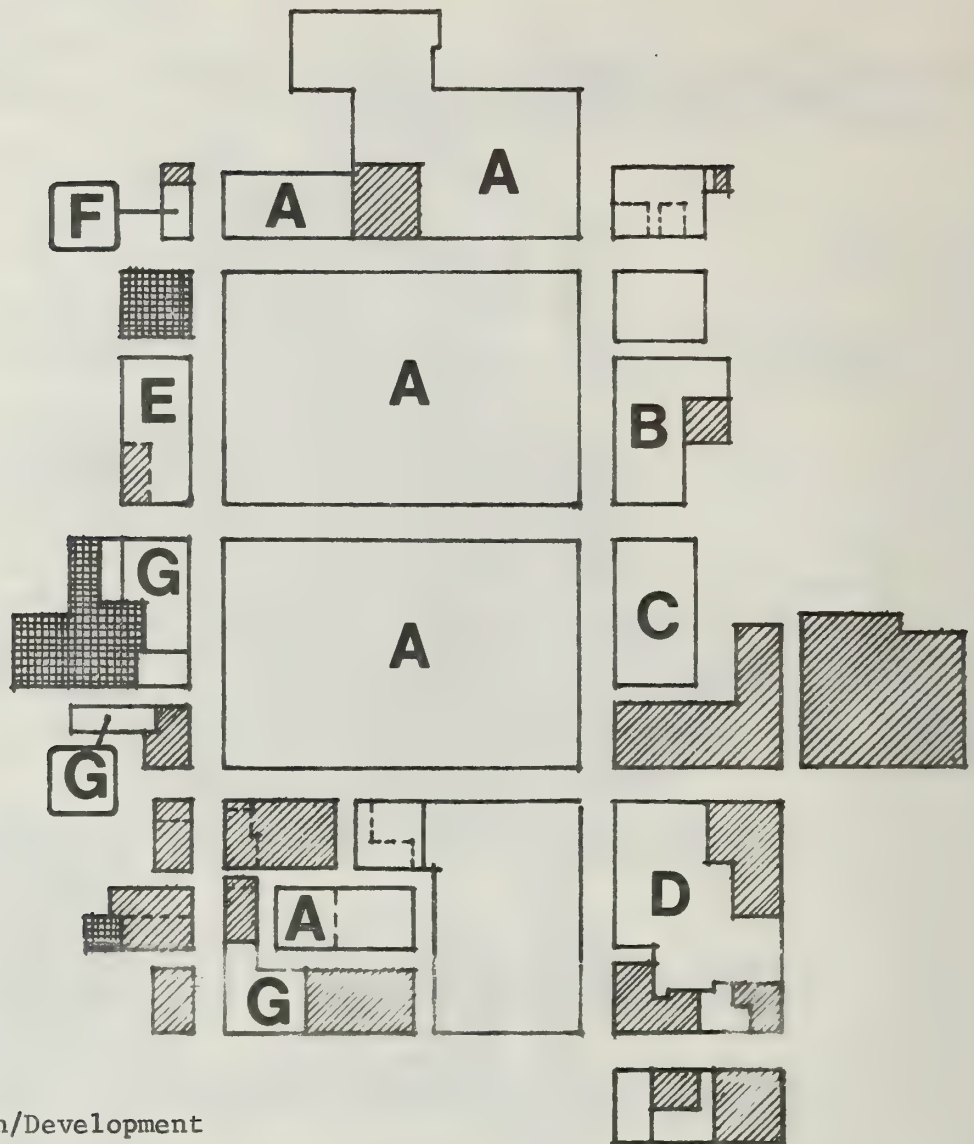


DECEMBER 1973

YERBA BUENA CENTER

EXHIBIT 4

DESIGNATED DEVELOPERS December 1973



YERBA BUENA CENTER

 Owner Rentention/Development

 Development Programmed

A - Arcon-Pacific; City and County of San Francisco

B - Contintental Development Corporation

C - Haas & Haynie Corp.

D - Taylor Woodrow

E - Nishkian/Western Growth Fund

F - San Francisco Community College District

G - Todco

 Construction complete/under way

The majority are single (05%), male (94%), and over the age of 45 (74%).¹²

The breakdown of land uses in the Project area as of October 1, 1973, is as follows:

<u># Acres</u>	<u>Uses</u>
30.8	Streets, alleys and other public rights of way.
2.8	Residential
3.0	Hotels
38.1	Other commercial, including approx. <u>25.4</u> acres in parking lots and garages
4.3	Industrial
1.8	Public and Institutional
1.9	Vacant Buildings
<u>4.6</u>	Vacant Lots
87.3	TOTAL

The land preparation activities in YBC are substantially completed. It is estimated by the City that an additional amount of \$7,600,000 will be needed from HUD to complete all federally-funded renewal activities.¹³

The planning and programming of the central portion of the project (Assessor's Blocks 3723 and 3734 and portions of Blocks 3706 and 3751, hereafter referred to as the "Central Blocks") are nearly complete. A Master Plan for development has been prepared for this area by the City and County of San Francisco, and working drawings are substantially complete for the proposed Public Facilities. Central Block construction is currently projected to begin in July 1974, with total Project completion scheduled for December 1983, as shown on Exhibit 5.

The aerial photograph in Exhibit 6 depicts the current physical appearance of the Project area.

- 12 - Refer to Section IV, D. of this Statement for a breakdown of the characteristics of the remaining YBC relocation workload.
- 13 - Letter to HUD Secretary James T. Lynn from Mayor Joseph L. Alioto, July 9, 1973.

EXHIBIT 5

YERBA BUENA CENTER PROJECTED CONSTRUCTION SCHEDULE FROM 1974 - 1983

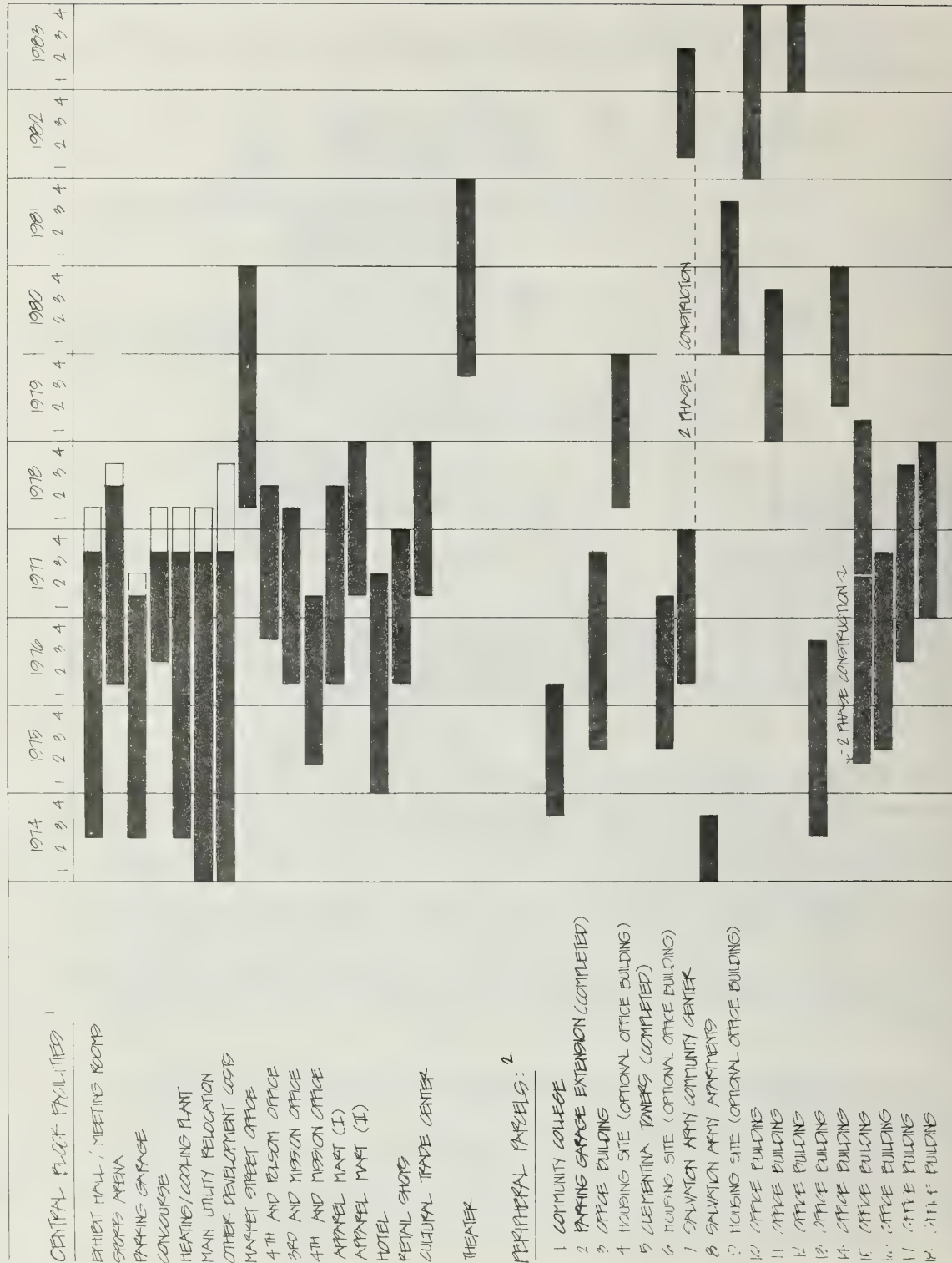


EXHIBIT 6

CURRENT PROJECT STATUS - AUGUST 1973



E. Yerba Buena Center Urban Renewal Plan, 1966

As stated in the Urban Renewal Plan, adopted by the Board of Supervisors on April 25, 1966, the Project's objectives are the following:

- Provide the framework within which restoration of the economics and social health of the Project and its environs will be accomplished by private actions.
- To assist in the suitable re-establishment within and without the Project Area of businesses and institutions which will be displaced by the Project and to provide adequate housing opportunities for families and single individuals.
- Guide development towards the production of satisfying environment preserving and enhancing the unique aesthetic and cultural qualities of the City.
- Stimulate and attract private investment, thereby improving the City's economic health, employment opportunities, and the tax base.

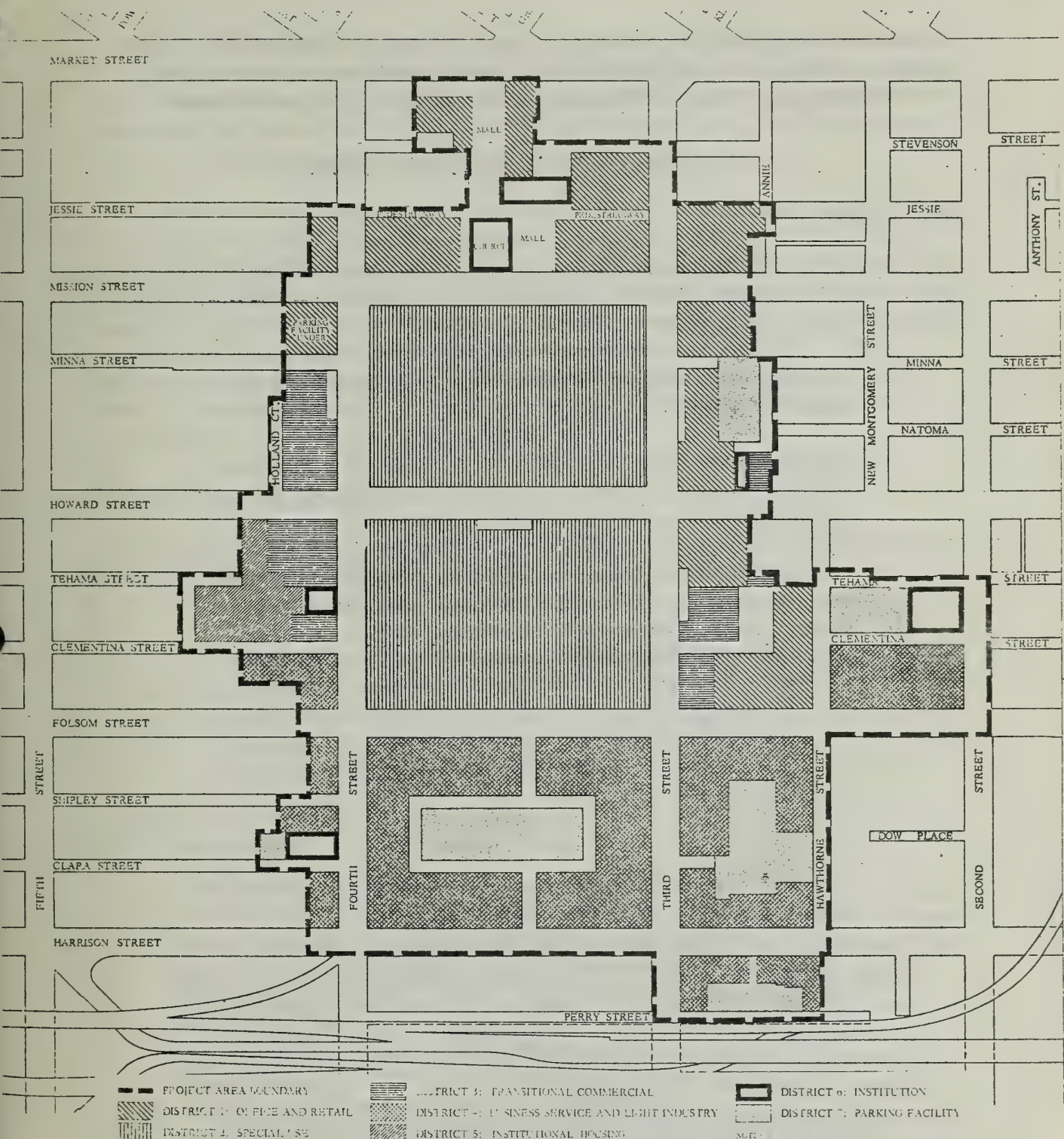
The 1966 Land Use Plan¹⁴ provided for redevelopment predominantly in office and retail, special use, and business services and light industry. One parcel was designated as institutional housing.

Assessor's Blocks 3723 and 3734 (between Mission and Folsom Streets) were designated as Land Use District 2, Special Use, while the portion of Block No. 3706 which is included in the Project was designated as Land Use District 1, Office and Retail. These blocks comprise the 25-acre area known as the "Central Blocks."

The 62 acres surrounding the Central Blocks, which include all of Assessor's Block No. 3751 and portions of Block Nos. 3705, 3707, 3722, 3724, 3733, 3735, 3750, 3752 and 3763 (hereafter referred to as the "Peripheral Blocks") were designated for uses ranging from Land Use District 1 through 7. (Refer to Exhibit 7 for the 1966 Land Use Plan; Refer to Appendix B for a fuller description of the permitted land uses.)

14 - The original Urban Renewal Plan included two optional Land Use Plans, A and B. By Ordinance No. 201-71, dated July 26, 1971, the Board of Supervisors approved the deletion of Land Use Plan B. Since HUD approved the pursuit of either Plan, and the City has opted for "A", discussion in this Section will pertain to Land Use Plan A.

EXHIBIT 7



The property bounded by Mission, Fourth and Minna Streets is intended for use as a public parking facility to be owned by the City and County of San Francisco.

MAP 2: LAND USE PLAN A (1966)
YERBA BUENA CENTER REDEVELOPMENT PROJECT AREA D-1

HUD granted approval of this Urban Renewal Plan in December 1966. Since that time, the Agency and the Board of Supervisors have approved two Plan Changes, portions of which are now before HUD for consideration.

F. Urban Renewal Proposed Plan Changes

Plan Change I

On March 31, 1971, the Redevelopment Agency submitted Plan Change I for the YBC Urban Renewal Plan to HUD for review and approval. This included the following Plan adjustments:

- the deletion of major alternate land use provisions of Land Use Plan B¹⁵;
- amendment of Land Use Plan A, to include minor street revisions and elimination of parking facilities as a permitted use in certain locations; and
- amendment of the Land Use Districts and the Standards for Development, to bring them into conformity with the zoning districts of the City Planning Code, and to add a hotel as a permitted use District.¹⁶

15 - As explained above, the original Plan contained two optional land use plans, A and B. The latter designates Block No. 3734 as transitional commercial, business service and light industry and as the site of a large parking facility. Land Use Plan A designates this Block for Special Use (i.e., the south block of the Central Blocks complex).

16 - The original Standards for Development and Plan Change I are attached as Appendices B and C, respectively.

On July 7, 1971, HUD notified the Agency that the proposed changes were acceptable, and that HUD did not object to their adoption, with the reminder that "the amendment relating to the inclusion of transient housing as a permitted use is subject to the provisions of Section 106(g) of the Housing Act of 1949, as amended."¹⁷

The proposed Plan Change and an updated transient housing study,¹⁸ were submitted to the Board of Supervisors in July 1971. By Resolution No. 406-71, the Board concurred in the need for transient housing in YBC, and by Ordinance No. 201-71 adopted the Plan Changes. Both measures were certified on August 13, 1971. Although, the updated transient housing study was subsequently submitted to HUD, no final HUD ruling was made, since the Project was subject to litigation at the time. Therefore, a final determination by HUD is still pending on the proposed hotel use in the Project area.

Plan Change II

The Agency submitted a second series of Plan adjustments to HUD on May 21, 1973.¹⁹ These included:

- Expansion of the "Summary of Proposed Actions" which states measures by which the Agency will remedy or cause to be remedied conditions causing blight; added to this summary is Subparagraph 11 "Payment for site acquisition and the installation and construction of certain Public Facilities; "

17 - Section 106(g) states that:

"No provision permitting the new construction of hotels or other housing for transient use in the redevelopment of any urban renewal area under this subchapter shall be included in the urban renewal plan unless the community in which the project is located, under regulations prescribed by the Secretary, has caused to be made a competent independent analysis of the local supply of transient housing and as a result thereof has determined that there exists in the area a need for additional units of such housing."

18 - On July 9, 1971, Development Research Associates completed an updating of their previous transient housing study for the Yerba Buena Center, originally prepared in June 1970.

19 - Refer to Appendix D for complete wording of Proposed Plan Change II.

- The addition of tax allocation provisions to the Urban Renewal financing plan which would allow a portion of taxes received from property within the Project area to be allocated to a special fund of the Redevelopment Agency to retire any indebtedness incurred in financing the Project;
- The land use reclassification of three sites within the Project boundaries as shown on Exhibit 8 and described as follows:
 1. Block 3733, Lots 1, 6, 7, 72, 89, 90 and related vacated streets from District C, Downtown Support, to District D Housing, provided that these lots are also developed and used for commercial use;
 2. Block 3733, Lots 37, 38, 39, 49, 41A, 42, 43 and related vacated streets from District E, Business Services and Light Industry, to District D, Housing; and
 3. Block 3751, Lots 37, 38, 39, 40, 42, 43, 44, 45, 46, 77 and related vacated streets from District E Business Services and Light Industry to District D Housing.

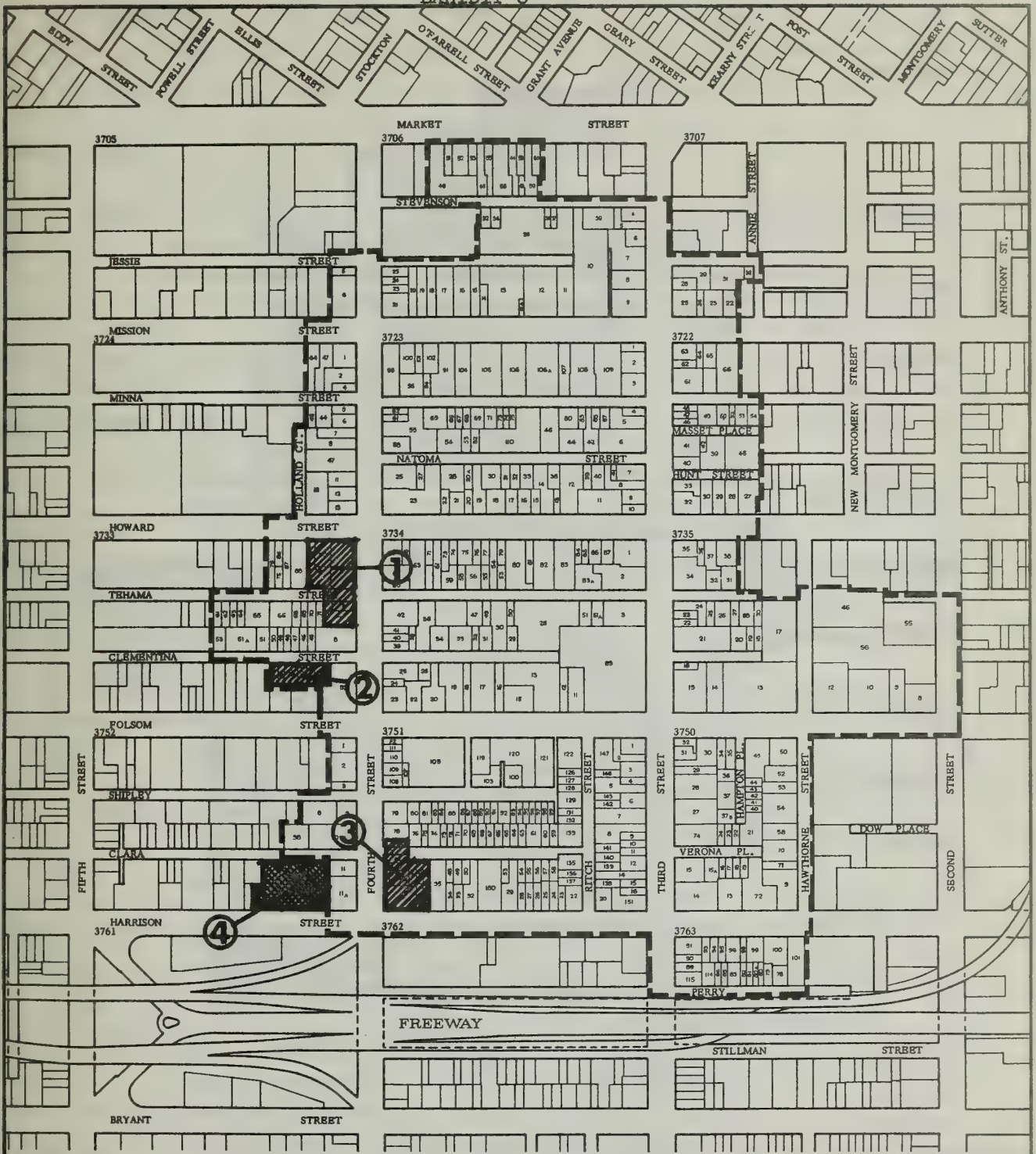
The proposed change in land uses was developed as a major component of the court settlement between the Redevelopment Agency and the Tenants and Owners in Opposition to Redevelopment (TOOR), signed in May 1973.²⁰

Plan Change II was adopted by the Redevelopment Agency Board on October 1, 1973, and by the Board of Supervisors on October 9, 1973.

Although the first two aspects of the proposed change are non-federal financial matters and not subject to HUD review, the latter land use change requires HUD approval.



20 - The court settlement also provided for the rezoning of a fourth site for housing outside the Redevelopment Project boundaries; municipally-financed housing is to be provided on these sites for low-income elderly persons. The TOOR litigation and settlement are explained more fully in Section III, H. of this Statement.




EXHIBIT 8



PROPOSED HOUSING SITES

YERBA BUENA CENTER REDEVELOPMENT PROJECT AREA D-1

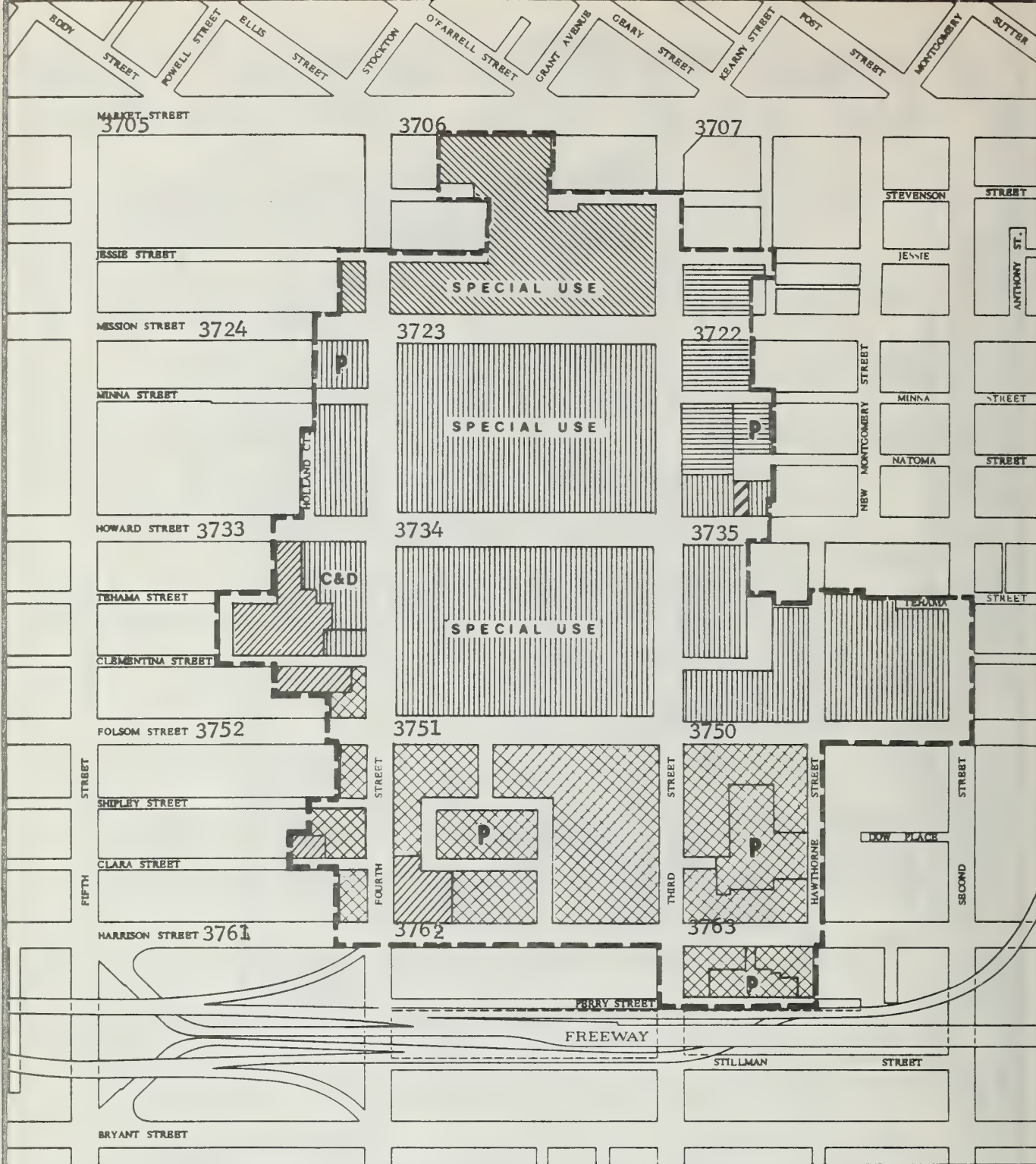
-  Proposed sites w/in boundaries
-  Lincoln School site; outside boundaries

-  PROJECT AREA BOUNDARY
-  3700 ASSESSOR'S BLOCK NUMBER
-  LOT NUMBER

SAN FRANCISCO REDEVELOPMENT AGENCY

0 FEET 200
JULY 1971





YERBA BUENA CENTER

REDEVELOPMENT PROJECT AREA D-1

LAND USE PLAN (1973)

EXHIBIT 9

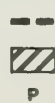
DISTRICTS :



A - DOWNTOWN OFFICE
B - DOWNTOWN RETAIL
C - DOWNTOWN SUPPORT



D - HOUSING
E - BUSINESS SERVICES
& LIGHT INDUSTRY



PROJECT AREA BOUNDARY
CITY OWNED
P PARKING FACILITY

SAN FRANCISCO REDEVELOPMENT AGENCY

0 FEET 200



EXHIBIT 10

San Francisco Redevelopment Agency Yerba Buena Center Redevelopment Plan, October 9, 1973 Districts and Permitted Uses

<u>Land Use District</u>	<u>Permitted Principal Use (1,2,3,4,7,8,9)</u>	<u>Maximum Floor Area Ratio (5,6)</u>
A	Business and professional offices; retail stores; personal services establishments; restaurants; clubs; theaters; meeting halls; churches; institutional and recreational buildings; offstreet parking structures.	14: 1
B	Same as District A.	10: 1
C	Same as District A plus laboratories and wholesale establishments not including warehouses; except that in blocks designated for <u>Special Use</u> permitted uses include only those allowed in District A plus exhibit hall; sports arena; hotel providing accommodations for transient guests; and radio and television studios.	7: 1
D	Housing specifically designed for occupancy by mature adults including offstreet parking and supporting recreational and other facilities.	7: 1
E	Same as District A plus laboratories; wholesale establishments; printers; radio and television studios; building services and repairs; storage buildings; and light industries involving only assembly, packaging, repair or processing of previously prepared materials.	5: 1

On July 18, 1973, HUD notified the Redevelopment Agency that

"It is our determination, based upon the current state of applicable environmental law, that HUD approval of the proposed changes, taken together with the outstanding plan change request of August 1971, would constitute a 'major federal action' under the intent of the National Environmental Policy Act (NEPA) of 1969.

"Therefore, it will be necessary for HUD to conduct a full environmental clearance review of the Yerba Buena Center Project in accordance with NEPA Section 102(2)(c) prior to taking final action on the proposed changes."

HUD's environmental review is of the entire Project as currently proposed. (Refer to Exhibits 9 and 10 for the 1973 Land Use Plan and Permitted Uses, respectively.)

G. Currently Proposed Development

Central Blocks - Public Facilities

A detailed master plan, comprised of public and private uses, has been developed by the City and the Agency for the development of the 25 acres within the Central Block area. (Refer to Exhibits 11 through 14.)

The planned public development²¹ includes a parking garage, a convention or exhibit hall, a meeting room complex, a multi-purpose arena, and a pedestrian concourse. Public development also includes a Central Heating and Cooling Plant to service the area, which will be located in the Peripheral Blocks south of the Central Block development.

The parking garage includes a total of approximately 776,000 square feet on two underground levels, with accommodations for approximately 1,800 parking stalls. It will extend under Howard Street, encompassing the western half of the two blocks between Mission and Folsom Streets.

21- Refer to Yerba Buena Center Public Facilities submitted by Thomas J. Mellon, Chief Administrative Officer to the Mayor and Board of Supervisors, March 6, 1972.

The exhibit hall, also underground, is to be constructed on top of the parking garage. It is designed to reach a maximum interior height of three stories, with net clear floor space of 330,000 square feet. There will be four movable walls to adjust available space to accommodate exhibits and shows of varying sizes and banquets of up to 5,000 persons.

The meeting rooms are to be constructed on two levels in the block between Howard and Folsom Streets. A series of eleven rooms will be located on the level of the Exhibit Lobby immediately above the dock service area. A second group of rooms is to be constructed on the concourse level directly above the Exhibit Hall. Encompassing a total of approximately 87,000 square feet, the rooms will vary in size, with movable partitions to accommodate small groups as well as assemblies up to 4,500 persons.

Associated with the exhibit hall/meeting room complex are approximately 50,000 square feet for concessions such as snack bars, food preparation, bars and restaurants; approximately 104,000 square feet for underground ramps and loading docks; approximately 47,000 square feet for storage and auxiliary spaces such as offices and restrooms; and approximately 59,000 square feet for public lobbies.

The multi-purpose arena is to be located on the eastern portion of the block between Howard and Folsom Streets (across the concourse from the convention complex). It will encompass approximately 435,000 gross square feet, divided almost equally between main arena space and lobby/auxiliary areas. The main arena is to reach eight stories in interior height rising approximately 116 ft. above sidewalk level at Folsom Street and 103 ft. at Howard Street. It is to provide permanent seating for 14,500 persons, with accommodations for an additional 5,000 in portable seating.

The pedestrian concourse, encompassing approximately 510,270 square feet, is to extend on various levels from the Bay Area Rapid Transit (BART) Station on Market Street, above Mission and Howard Streets by means of pedestrian overpasses, to a multi-level plaza in the south block between Howard and Folsom Streets. As planned, the concourse is to be approximately 1,800 feet in length and varying from 75 feet to 200 feet in width. It is to include landscaping, paving, art objects, a public fountain, a park surrounding St. Patrick's Church in the north block and an urban plaza 300 feet by 200 feet in the central block.

Central Blocks - Private Facilities

The currently planned private facilities in the Central Blocks are projected to include three office buildings, retail shops, a legitimate theater, and the retention of St. Patrick's Church in the north block; a hotel, an apparel mart, related parking, a potential Cultural Center, and retail shops in the

central block; and an office building in the south block. An airline terminal was originally planned for the north block area, but has recently been deleted from the Master Plan. No commitment has been received for the development of the theater, but all other private facilities are to be developed by one major developer.

As currently planned, the total office space in the three Central Blocks will be approximately 2,275,000 square feet. Retail space, including the trade center, is estimated at 343,000 square feet, with an additional 1,086,000 square feet projected for the six-story wholesale apparel mart. The private garage beneath the apparel mart is planned to accommodate 600 parking stalls, and the hotel is to contain 700 rooms.

Peripheral Blocks

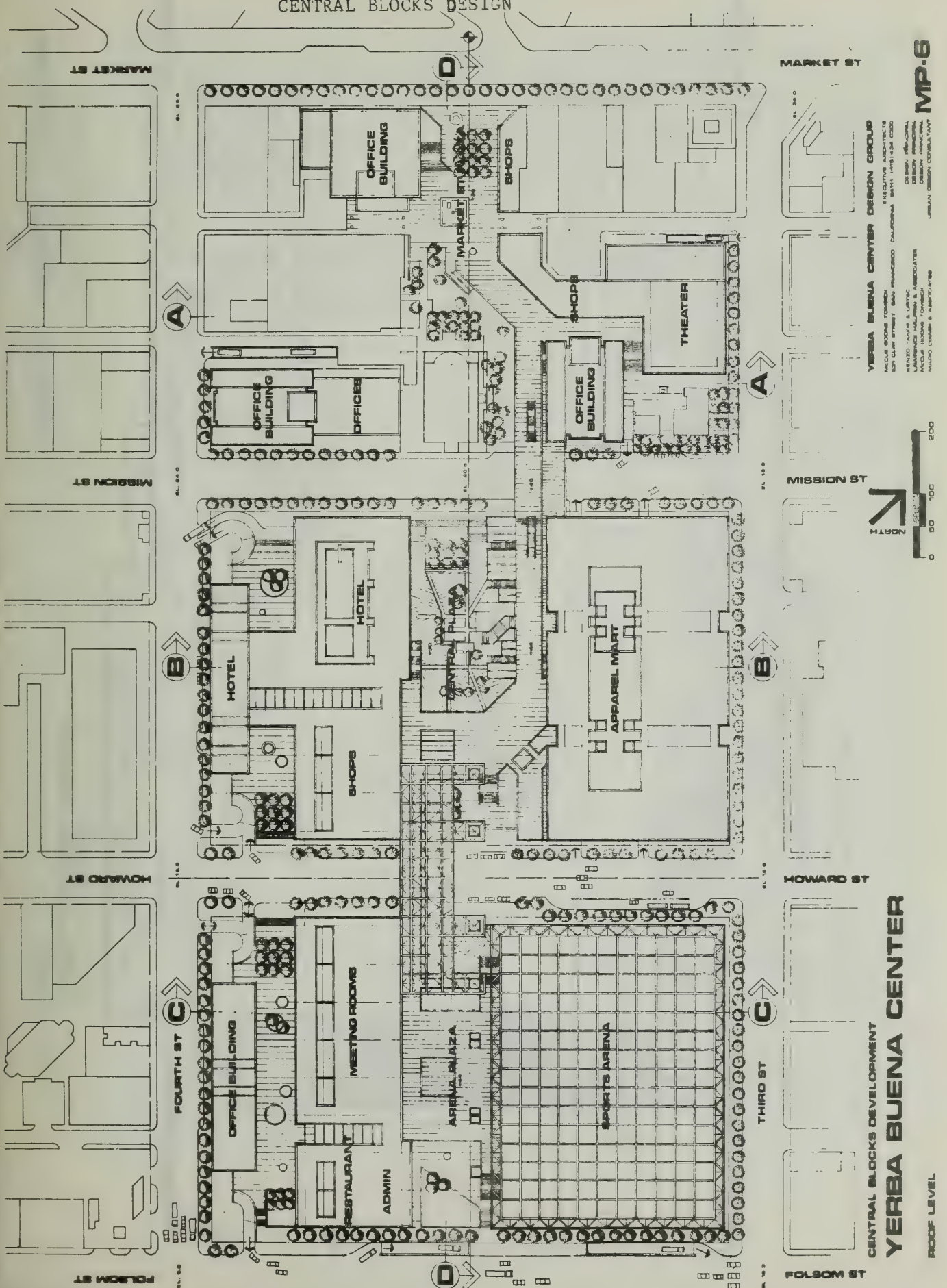
Land use plans for the Peripheral Blocks permit primarily business services and light industry on the blocks south of Folsom Street, and a mixture of uses on the blocks north of Folsom. Development in this area was planned as a combination of retention/rehabilitation structures and new construction.

The major development north of Folsom, as well as a portion of the development south of Folsom, is projected as office building use to be developed, or rehabilitated by private interests. The notable exceptions to this are the Community College (Site No. 1 on Exhibit 15), the extension of the Fifth and Mission Streets public parking garage (Site No. 2 on Exhibit 15), and the existing and proposed housing (Site Nos. 4, 5, 6, 8 and 9 and Exhibit 15).²²

The Central Heating and Cooling Plant servicing the Public Facilities is to be located in Block 3751 between Harrison and Folsom Streets.

22- Housing Construction on Site No. 5 is completed; construction on Site No. 8 nearing completion; and the remaining are proposed sites.

CENTRAL BLOCKS DESIGN



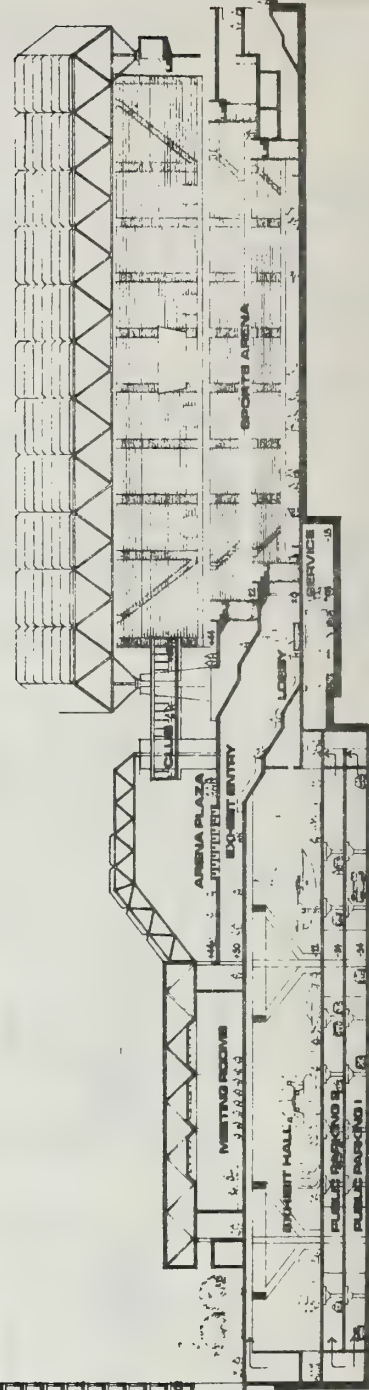
YERBA BUENA CENTER DESIGN GROUP
 EXECUTIVE ARCHITECTS
 8000 BOOMER TOWER
 801 CLAY STREET SAN FRANCISCO CALIFORNIA 94111-1818
 DESIGN GROUP
 1000 CALIFORNIA STREET
 SAN FRANCISCO, CALIFORNIA 94108
 DESIGN GROUP
 1000 CALIFORNIA STREET
 SAN FRANCISCO, CALIFORNIA 94108

CENTRAL BLOCKS DEVELOPMENT
YERBA BUENA CENTER
 ROOF LEVEL

MP-6

CENTRAL BLOCKS DESIGN

View Northward from Folsom Street



CENTRAL BLOCKS DEVELOPMENT

YERBA BUENA CENTER

© 1994

YERBA BUENA CENTER DESIGN GROUP

ANGIE BOOM TOYON
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ERNEST TRAMER & LUTIC
LAWRENCE HANSEN & ASSOCIATES
ANGIE BOOM TOYON
SUNNY CUNYGE & ASSOCIATES

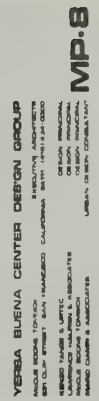
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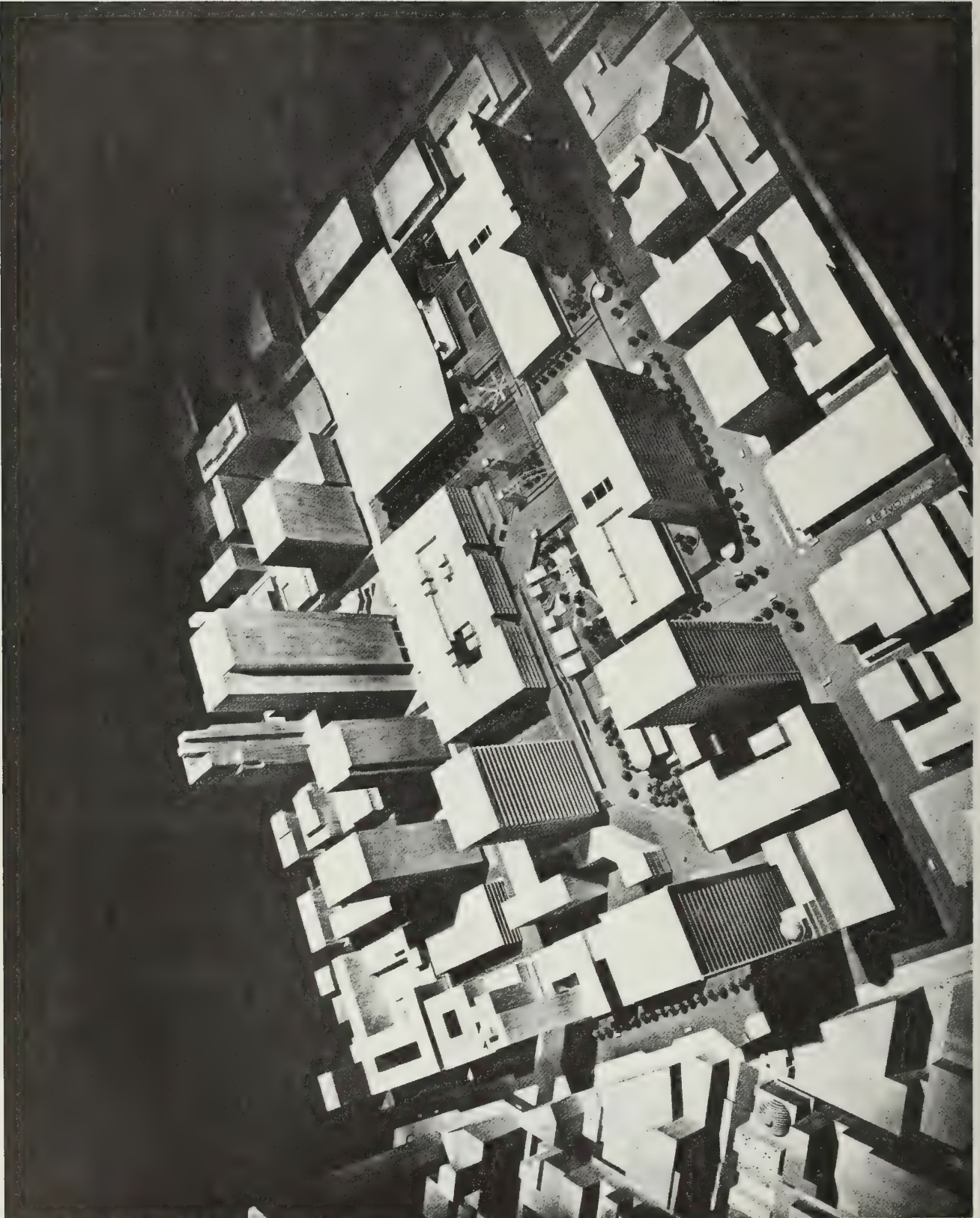
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Wp. 8

CENTRAL BLOCKS DESIGN

View Northward from Howard Street





CENTRAL BLOCKS DESIGN

Source: Blue Book

Following is a breakdown of the projected uses for the Peripheral Blocks:²³

<u>Use</u>	<u>Size</u>
Offices (new)	4,281,200 sq. ft.
Offices (rehabilitated)	262,470 sq. ft.
Residential (new completed)	276 units ²⁴
Residential (new)	400 units
Industrial (rehabilitated)	42,860 sq. ft.
Retail and general commercial (new)	113,880 sq. ft.
Retail and general commercial (rehabilitated)	3,325 sq. ft.
Parking (completed) (new/rehabilitated)	737 spaces
Parking (planned/not completed) (off-street)	516 spaces
Parking (planned/not completed) (on-street)	181 spaces
Office (code conforming at time of plan approval)	546,500 sq. ft.
Industrial (code conforming at time of plan approval)	3,800 sq. ft.
Retail and general commercial (code conforming at time of plan approval)	4,475 sq. ft.
Heating and Cooling Plant	-

23- Little, Arthur D., Inc., and URS Research Company, Draft Environmental Impact Report, on Yerba Buena Center, May 1973, p. S-10; adjusted to reflect substitution of housing for office development on Peripheral Sites 4, 6, and 9.

24- In addition to the completed 276 units, the Salvation Army elderly housing project currently under construction contains 258 residential units, a small portion of which will be within the Project boundaries.

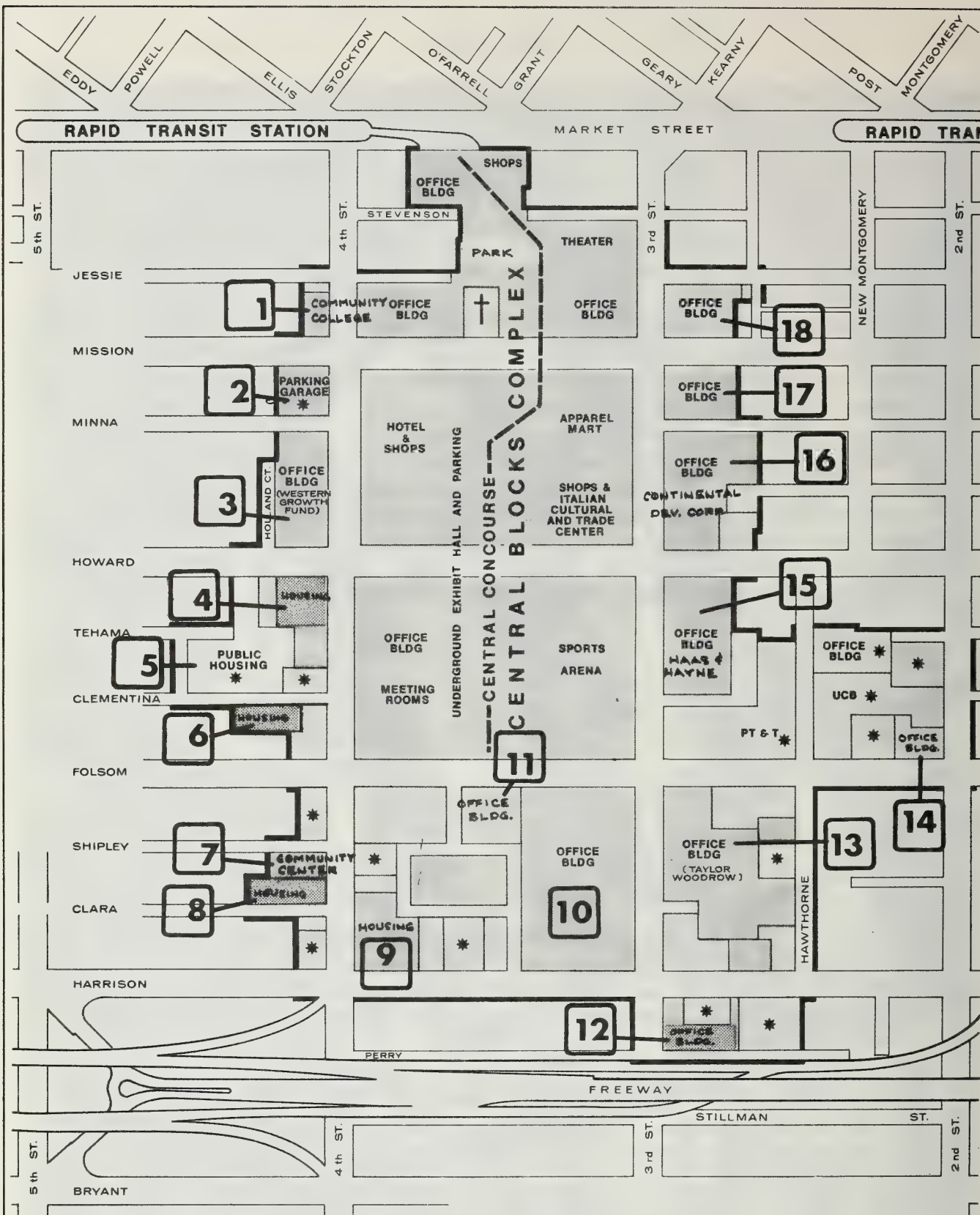


EXHIBIT 15

Note: Numbers are site numbers

* Completed (Construction/Rehabilitation)

YERBA BUENA CENTER

PROJECT ELEMENTS

0 FEET 300

December 1973



H. Public Opinion and Litigation 25

The YBC Urban Renewal Project and proposed plan changes have been approved by the San Francisco Redevelopment Agency, the City Planning Commission, the Board of Supervisors and the Mayor. Other groups who have evidenced support of the Project through the public hearing mechanism or written communications include the Hotel Employers Association, the Downtown Association of San Francisco, the San Francisco Convention and Visitors Bureau.

Support has also been expressed for the Project as amended by Plan Change II from groups who previously opposed the Project. These groups include Tenants and Owners in Opposition to Redevelopment (TOOR); District Council No. 5, Economic Opportunity Council (EOC); and the Filipino Brothers League. 26

Opposition to the Project has come from various groups, generally on one or more of the following grounds:

- displacement of Project residents and property owners
- state and federal environmental clearance requirements
- method of financing the public facilities

This opposition has been manifested in several lawsuits involving HUD and/or the Agency including most significantly:

- 1) San Francisco Tomorrow et al. vs. Romney, 1972, calling for HUD to prepare Environmental Impact Statements, in compliance with NEPA, on YBC and two other Urban Renewal Projects in the Bay Area. In the case of YBC, it was determined on January 18, 1973, that a full EIS was not required, given the circumstances at that time. (Refer to Appendix E and to the comments of San Francisco Tomorrow in Part II for further details and interpretation of this suit.)

25- The list of proponents and opponents is not intended to be all-inclusive, but rather to present a balanced picture of public opinion. Although many prominent individuals have publicly expressed support of or opposition to the Project, this list is primarily limited to organizations and public bodies.

26- Joint Public Hearing conducted by the Board of Supervisors and the Redevelopment Agency on Yerba Buena approved Redevelopment Project Area D-1, June 11, 1973, official transcript.

- 2) TOOR vs. HUD, 1969, challenging the YBC Relocation Plan. This litigation resulted in a preliminary injunction in April 1970; a subsequent "Consent Order" dissolving the injunction, establishing an Arbitration Board and requiring the Agency to construct 1500-1800 units of low-rent housing within a three-year period; and a court approved Settlement between the Agency and TOOR in 1973. The Settlement called, most significantly, for the allocation of hotel tax funds and the sale of Redevelopment Agency bonds to finance the construction of four low-to-moderate income housing projects for mature adults, in exchange for dismissal of the suit. Three of these housing projects are proposed within the YBC Project boundaries, and one is outside but adjacent to the boundaries.
- 3) Duskin vs. Alioto, et al. - This taxpayer suit, filed on January 31, 1972, alleges that the City cannot expend funds from the Hotel Tax Fund for the public facilities without an Environmental Impact Report (EIR) under the provisions of the California Environmental Quality Act. The City has since prepared an EIR, published in May 1973.

Additionally, the Complaint alleges that the City is prohibited under California law and the City Charter from proceeding with the financing of the public facilities in Yerba Buena Center without a vote of the electorate. (Refer to Appendix E for additional details.)

- 4) Williams, et al. vs. City and County of San Francisco - This suit, brought in July 1972, contends that the City is prohibited from entering into a financing agreement with the San Francisco Redevelopment Agency, whereby the Agency would issue Revenue Bonds for the construction of the public facilities in Yerba Buena Center, without a vote of the electorate.

This case has been consolidated with a proceeding brought by the Agency entitled San Francisco Redevelopment Agency vs. All Persons, to validate the financing agreement and the issuance of bonds by the Agency in conjunction with financing of the Public Facilities. (Refer to Appendix E for additional details.)

Appendix E provides a more complete summary of litigation concerning YBC.

In addition to the above litigation, an initiative petition was circulated by a group known as Friends of Yerba Buena, calling for an alternative method of financing the Public Facilities and for certain changes in the composition of the Project elements. The petition did not receive sufficient signatures to be placed on the ballot in November 1973.

IV. Detailed Descriptions and
Probable Environmental Impacts

A. Natural Features

Natural features are here defined as those physical attributes such as hills and water courses formed by natural physical action.

1. Topography: One of the first descriptions made in the English language of what is now the South of Market area was that of Captain George Vancouver who sailed into the Bay in November 1792. He wrote in his diary, "a few scattered trees were growing on the more elevated land, with some patches of dwarf shrubs in the vallies; the rest of the country presented either a surface of naked rocks, or a covering with very little verdure."

When first mapping of the area was done by the U.S. Coast Survey in 1852²⁷, the shoreline of Mission Bay was located just south of the intersection of Folsom and Fourth Streets. At that time, the project area was covered with sand dunes with indicated heights of as much as forty feet. Over the years, the area has been subjected to filling and surface grading. What was formerly Rincon Hill has been substantially reduced as the result of such activities, and manmade land now occupies the former site of Yerba Buena Cove a few blocks to the southeast of the Project Area.

Today, the project area has no topographical features of a significant nature. The natural slope of the ground is toward the south, ranging in elevation of 25 feet to 10 feet mean sea level (msl).²⁸ There are no major water courses, open areas, hills or depressed areas; no natural wooded areas or lakes. The YBC project and its proposed Plan Changes do not present any alteration to the existing topographical features of this site.

2. Wildlife and Vegetation: The early urbanization of this area resulted in the removal of any natural vegetation or wildlife which may have existed. When the area was at its peak of development in the late 1950's, before demolition of structures began, there was virtually no space left for trees or vegetation. As buildings were removed, some lots were graded for automobile parking while others were left vacant with weeds.

One exception is an area of approximately 1½ acres surrounded by Third, Folsom, Ritch and Harrison Streets. On this cleared site, some of the remaining residents have planted and are maintaining a neighborhood garden, including

27 - Yerba Buena Center, Foundation Investigation, Dames & Moore, March 20, 1972, Page 4.

28 - U.S. Geological Survey Quadrangle Sheet 1: 24000 (San Francisco Northern California) 1956.

a variety of plants from sunflowers to a small redwood tree. This parcel is designated for office and business services use in the Redevelopment Plan. The garden is an unauthorized use and is slated for eventual removal.

A second neighborhood garden has been planted south of Clementina Street and is being maintained by the residents of Clementina Towers. This use has been authorized by the Agency as an interim use until such time as the parcel is developed in accordance with the Plan.²⁹

At present, some of the parcels in the peripheral blocks which have already been redeveloped or rehabilitated have had formal landscaping. A substantial amount of additional landscaping, street trees and open plaza areas are proposed for the Central Blocks area. Approximately \$13,000 of public construction funds and 1% of all private development funds are to be allocated for landscaping, art objects and public areas. In addition, the preliminary plans for the proposed low-income housing sites include plans for neighborhood gardens to serve the residents and to replace those scheduled for removal.

Thus, it is anticipated that the net impact will be positive by substantially increasing the amount of vegetation in the area.

29 - This parcel has been designated for low-income housing in Plan Change II.

B. Earth Sciences And Man-Made Systems

1. Geology

Extensive soils testing has been completed in the Project area by the firm of Dames & Moore under contract to the City and County of San Francisco. ³⁰

The site geology ³¹ indicates up to 37 feet of surface dune sand underlain by erratically placed deposits of compressible bay and marsh clay which extend to depths of -22 feet. ³² The next lower soil stratum encountered is a dense clayey sand varying from 5 feet to 13 feet in thickness.

Below these deposits is the Colma formation of dense silty sand, with an upper elevation of -14 feet to -29 feet in the proposed Exhibit Hall area and up to -6 feet in the Sports Arena area. It is underlain by older bay and marsh clay deposits with upper elevations between -58 feet and -92 feet, and vastly varying thicknesses (refer to Exhibit 16).

These deposits rest upon residual soils and an irregular bedrock known as the Franciscan Formation. The bedrock surface is at elevation -245 southeast at the intersection of Third and Folsom, and is believed to continue to rise to the southeast until it reaches the surface at Rincon Hill. ³³

-
- 30 - Foundation Investigation, Yerba Buena Center, Exhibit Hall & Sports Arena for the City and County of San Francisco by Dames & Moore, March 20, 1972. (Subsurface soil conditions were explored by drilling 12 borings at selected locations throughout the site. Refer to Appendices F1 and F2 for Plot Plan and Generalized Soil Profiles.)
 - 31 - Refer to Appendix F3 for an explanation of the historical geologic formations.
 - 32 - All figures, unless otherwise noted, are based upon San Francisco datum, (SF datum = 8.69 ft. MSL datum).
 - 33 - The Dames & Moore borings were confined to the Project area, and thus testing was not performed on Rincon Hill. The pattern would suggest that the exposed bedrock on Rincon Hill is an extension of the Franciscan Formation underlying the project area.

EXHIBIT 16

STRATA DESCRIPTION	ELEVATIONS OF TOP OF STRATUM											
	BORING 1	BORING 2	BORING 3	BORING 4	BORING 5	BORING 6	BORING 7	BORING 8	BORING 9	BORING 10	BORING 11	BORING 12
DUNE SAND OR FILL (GROUND SURFACE)	+8	+13	+16	+10	+20	+15	+20	+20	+20	+16.5	+20	+10.5
SOFT TO STIFF ORGANIC CLAYS & SILTS (BAY OR MARSH DEPOSITS)	-6	-	-	-4	-1	-10	-15	-17	-7	-3	-2	-3
DENSE CLAYEY SAND OR SANDY CLAYS	-14	-2	+2	-8	-4	-12	-22	-18	-9	-9	-6	-6
DENSE SILTY SAND (BEARING SANDS)	-19	-14	-6	-16	-17	-23	-29	-24	-16	-20	-15	-17
OLD BAY CLAYS INCLUDING INTERMEDIATE SANDS	-64	-65	-92	-63	-74	-65	-70	-78	-76	-67	-58	-64
RESIDUAL SOILS	-177	-	-108	-224	-237	-	-	-	-	-	-	-
ROCK	-185	-	-126	-240	-245	-	-	-	-	-	-	-
END BORING	-199	-88	-132	-246	-255	-85	-80	-86	-81	-84	-80	-90

NOTES:

- (1) ELEVATIONS REFER TO CITY OF SAN FRANCISCO DATUM.
- (2) DETAILED LOGS FOR EACH OF THE BORINGS ARE PRESENTED ON PLATES A 1A THROUGH A 1L.
- (3) THE SOILS ARE CLASSIFIED IN ACCORDANCE WITH THE NOMENCLATURE DESCRIBED ON PLATE A2, SOIL CLASSIFICATION CHART & KEY TO TEST DATA.

GENERALIZED SOIL PROFILES

The engineering properties of these formations vary considerably. In the past, buildings in this area have most often been founded in the layer of dune sand which has a low relative density and moderate shearing strength, with a strong potential for densification and liquefaction in the case of strong seismic shaking. The next two formations of bay deposits and clayey sand are moderately compressible, with low to moderate shearing strengths. The layer of dense silty sand is an excellent foundation material with high densities and high shearing strengths. Based upon their soils investigation, Dames & Moore concluded that these "bearing sands...are very competent materials with a relative density of 80% or more and are not considered susceptible to liquefaction under seismic shaking." 34

The layer of marine clay underlying the bearing sand, extending from -177 to -235 feet, is overconsolidated, but could nevertheless contribute appreciable settlement to heavily loaded structures such as the planned public facilities. 35

All of the public facilities are to be supported on spread footings founded in the layer of dense silty sand. Although construction designs are not yet developed for the private facilities, the soils investigation studies are to be made available to the private redevelopers and construction plans will be closely monitored by the Agency to assure a soundness and safety of development equivalent to that of the public facilities. 36

The deepest major foundation level in the Project will be that of the lowest basement level of the Exhibit Hall/Parking Garage complex at elevation -34 feet. Since the water table level is at elevation -2 feet, 37 it will be necessary to artificially lower the water table to avoid flooding the site during construction, and to maintain a permanently lowered table beneath the Public Facilities to reduce the upward hydrostatic pressure against the spread footings and foundation.

34- Op. cit.: Dames & Moore, p. 25.

35- Ibid., p. 6.

36- Refer to Appendix G, Letter to James H. Price from Robert L. Rumsey

37- The lower water table level in the area is presently between Elevator -8 and -13 feet, but rising steadily. It is believed that previous dewatering activities in the area have created this artificially low table and that it will gradually return to a level of approximately Elevation -2 to Elevation -0.

By digging wells and continually pumping water from the site, the water table will be initially lowered to elevation -70 feet to allow for the construction of cut-off walls around the southern two blocks of the Central Block area. These walls are to provide permanent insulation to the foundations, while allowing the water table outside the walls to resume its natural level. Within the walls the water table will be allowed to rise to elevation -34 feet, and will be permanently maintained at this level through a combination of pumps. 38

A potential negative impact of the excavation scheme is the possibility of subsidence in the Project and surrounding area. Potential subsidence of the newly constructed Public Facilities within the Project area could be as great as 1/2" to 2" during construction as the load is applied but would not affect the Project following construction.

The initial dewatering of the site to allow for the construction of the cut-off walls could create a small degree of additional subsidence of surrounding buildings until such time as the cut-off walls are completed, and the water table returns to its previous level. In their soils investigation report, Dames & Moore stated that:

"Groundwater level readings taken from another investigation indicate that recent, dewatering programs in downtown San Francisco have lowered the water table to at least as low as Elevation -26 feet. Based on the behavior of the existing structures in this area, and other areas of San Francisco, the proposed temporary dewatering should not result in noticeable settlement of the existing nearby structures. No highly compressible soils are expected to be encountered much below Elevation -26 feet, and therefore settlements for this proposed dewatering scheme should not be any more adverse than those previously experienced. However, it is suggested that prior to construction, accurate level readings be taken on adjacent structures which may be susceptible to distress caused by the areal subsidence." 39

38 - The dewatering process will add 0.72 mgd to the underground water system during the initial phase, and 0.08 mgd after the cut-off walls are complete. Refer to Section IV., B., 2 for a discussion of the impacts.

39 - Op. cit., Dames & Moore, p. 24.

To mitigate against potential negative effects of areal subsidence the Agency will continually monitor the area through the use of observation wells and subsidence markers. Corrective measures, such as pumping water back into the effected areas, will be taken by the Agency if the need should arise. ⁴⁰ Due to these preventive and corrective measures, no negative effects are expected from areal subsidence.

Seismology

There are no known earthquake faults directly under the Project area. The closest major faults are the San Andreas, the Hayward and the Calaveras. The San Andreas is a few miles west under the Pacific Ocean as it passes the City of San Francisco. The Hayward and Calaveras Faults are in the East Bay.

Fifty-one earthquakes registering 5.0 or more on the Richter Scale have been recorded in the Bay Area ⁴¹ since 1808. The most severe was that in 1906, which has been estimated at a Richter intensity of 8.3. The entire YBC Project area was destroyed during this tremor and the resultant fire.

Seismologists estimate the recurrence interval of an earthquake of this intensity to be 100-200 years. ⁴² In the assessment of John A. Blume & Associates, "the Yerba Buena Center facilities are likely to be subjected to a greater earthquake such as San Francisco 1906 in their useful life span and also to sharp, damaging earthquakes of a lesser magnitude two or more times during their useful life." ⁴³

40- Op. cit., Appendix G. Refer to this letter for an outline of the steps the Agency is prepared to take.

41- Within 25 miles of the YBC Project area.

42- Blume, John A. & Associates, Engineers: "Seismic Design Criteria for Public Facilities, Yerba Buena Center," prepared for McCue, Boone & Tomsick, Executive Architects, Yerba Buena Public Facilities, December 1972. p. 5. (This is not intended to imply that a major quake could not occur at any time regardless of the estimated interval.)

43- Ibid., p. 5.

Seismic design criteria have been established for the Project's Public Facilities by the Firm of John A. Blume and Associates, Engineers, and adopted by McCue, Boone and Tomsick, the Executive Architects for the Public Facilities. Values of dynamic soil properties at strain levels anticipated during an earthquake were provided by Dames & Moore ⁴⁴ and formed the basis for extensive soil-structure interaction studies by Blume & Associates.

The basic design procedures consisted of first designing each building to meet earthquake standards of the 1970 Uniform Building Code, and then readjusting the design based upon the results obtained from dynamic analysis of the structural frames. As the result of this testing, the criteria recommended by Blume & Associates establishes a base shear coefficient for the first step of design of 0.2. This factor, which will result in a calculated total seismic force of 20% of the building dead load is at least two and one-half times greater than the code-required force. The distribution of this total seismic force, called base shear, will be in accordance with the code.

The buildings were further analyzed dynamically against soil and structural response spectra for a magnitude 7.0 earthquake and a magnitude 8.3 earthquake. These results lead to a series of structural and non-structural recommendations to respond to the ductility of the buildings.

The studies performed meet the requirements of HUD's recently revised guidelines ⁴⁵ and appear to provide adequate assurances against serious damage in a moderate earthquake and against collapse in a major earthquake.

While proper design can minimize the effects of an earthquake on a completed structure, there is still the short term problem if a major earthquake occurs during the construction period, when buildings are most vulnerable. A high degree of structural damage is certain in any new construction in seismic risk zones during a major quake; however, collapse can be prevented by the installation of temporary bracings in

44- Dames & Moore, "Report, Dynamic Laboratory Testing, Proposed Public Structures, Yerba Buena Center," Aug. 8, 1972.

45- "Earthquake Procedures for HUD Programs in Seismic Zones II and III, SF 4541.1, September 10, 1973.

incomplete structural framing and in areas of open-excavation. To minimize the potential negative impact of seismic activity during construction, the City will provide adequate shoring to prevent collapse. 46

Seismic studies have not yet been performed for the Project's private developments. However these parcels will be subject to the requirements of the San Francisco Building Code and to strict regulation by the Bureau of Building Inspection. Consistent with HUD Earthquake Procedures, soils analysis and static analysis of structures will be required for all developments and, in instances where special interpretation of the regulations or innovative structure design is involved, additional analysis such as dynamic testing will be required. 47

With the incorporation of these higher seismic design standards and preventative measures in the Central Blocks developments and strict regulation of all future development in the peripheral blocks area, the potential negative effects of severe seismic shaking has been adequately minimized, and structural collapse appears highly unlikely.

It has further been noted by the Mayor's Office of Emergency Services that the proposed public facility will serve a valuable function as a mass care facility in the event of an earthquake or other major disaster impacting the downtown area.

46- Refer to Appendix G., Letter to James H. Price from Robert L. Rumsey

47- Ibid.

3. Liquid Domestic Wastes and Hydrology

A Master Plan for Waste Water Management was completed by the City of San Francisco in September 1971, as ordered by the Regional Water Quality Control Board (RWQCB) in Resolution No. 67-64 of December 1967. Subsequent Resolutions and Cease and Desist Orders from the RWQCB and the State Water Resources Control Board (SWRCB), respectively, established additional discharge requirements and timetables for completion of segments of the Master Plan. In response to these orders and to major changes by regulatory agencies in water quality and grant funding, the City prepared Supplement I to the Plan in May 1973, which was adopted by the Board of Supervisors on July 2, 1973.

The concepts of this amended Plan have been accepted by the RWQCB and EPA, and each incremental development will be individually reviewed and approved as the Plan progresses. ⁴⁸ Legal enforcement of the implementation of this Plan in accordance with its timetables is vested in the SWRCB.

All liquid wastes (sewage) and urban runoffs in the City and County of San Francisco are discharged into a combined sanitary sewer and storm drain system. These are currently transported to three treatment facilities known as North Point, Southeast, and Richmond-Sunset. YBC liquid wastes will initially be disposed at the North Point Treatment Plant, which provides conventional primary sewage treatment only. ⁴⁹ However, the amended Master Plan for Waste Water Management calls for the abandonment of the North Point Plant as a dry weather facility, construction of transport facilities to take the North Point flow to the Southeast Plant, and the enlargement of facilities and upgrading of treatment at the Southeast Plant to handle the combined flows. The North Point Plant is then to be used as an interim wet weather treatment facility. This transition is scheduled for completion by June 1978. ⁵⁰

48 Final Environmental Impact Report and Statement, San Francisco Wastewater Master Plan, 1974, prepared by the EPA and the City and County of San Francisco.

49 The primary treatment includes prechlorination, screening, grit removal, and primary sedimentation with chemical coagulation capabilities using ferric chloride and post chlorination.

50 The amended Master Plan for Waste Water Management presents two time schedules for improvement of the existing sewage system. With no unforeseen delays, the transfer of the North Point flow would occur by June 1977. In discussions with City officials, it appears more realistic that the transfer will be completed by June 1978 as depicted on Time Schedule B of the Plan.

Secondary, or Level II, treatment is to be provided at the Southeast Plant for the North Point flow by January 1980. 51

Therefore, there are three stages of impact which must be considered:

1) Start of Construction to June 1978

Primary treatment of YBC wastes (during the construction phase and following completion of the earliest development) at the North Point Plant;

2) July 1978 - December 1979

Primary treatment of YBC wastes (following completion of most major development) at the Southeast Plant; and

3) January 1980 and After

Secondary treatment of YBC wastes (following completion of all construction) at the Southeast Plant.

Phase I - Start of Construction to June 1978

The North Point Treatment Plant has a maximum rated hydraulic capacity of 190 million gallons per day (mgd) and an effective capacity of 160 mgd. Although the plant can process flows up to this effective capacity, when flows exceed 65 mgd, they are treated at progressively reduced efficiency levels. When the effective level of 160 mgd is reached, the debris in the storm water run-off clogs the bar screens to the point that any additional flow cannot be handled, and must by-pass the treatment facility. 52

The current average dry weather flow received at this plant is approximately 61 mdg, and the average wet weather flow is 118 mgd. Although the facilities are adequate to handle the dry weather flow, at full efficiency and the average wet weather flow at slightly reduced efficiency, during heavy rain the wet weather flow exceeds the maximum capacity of the North Point Plant, and the comingled waters are discharged directly into the Bay, bypassing the treatment facilities. 53

51 On Time Schedule A, Level II, treatment is scheduled for completion by June 1977.

52 Interview with Tom Landry, San Francisco Division of Sanitary Engineering

53 San Francisco, Division of Sanitary Engineering Master Plan for Waste Water Management, presented to the Board of Supervisors, September 15, 1971.

The YBC project will have a negative impact to the extent that it contributes to the total amount of sewage processed at this facility, since only primary treatment is provided and since it is frequently necessary to use the bypass procedure.

The maximum increase in dry weather flow from the YBC project prior to June 1978 is expected to be 1.3 mgd of domestic wastes ⁵⁴ and 0.08 mgd from dewatering of the site following construction, ⁵⁵ for a total of 1.38 mgd. This will constitute approximately 0.9% of the Plant's effective capacity and 2.3% of the projected average dry weather flow to this facility in 1978. ⁵⁶ This amount of approximately 2% is not of a major magnitude and will not tip the balance in San Francisco's sewerage system. However, to a small degree, it will exacerbate an already inadequate system, and must be considered a negative impact to that extent.

The characteristics of liquid domestic wastes generated in YBC can be considered typical of an urban area with respect to suspended solids, BOD, nitrates and other content components. It is, therefore, not expected that any disproportionate loading will result from these wastes. However, the urban runoff, while not increasing in quantity following redevelopment, is expected to have a higher concentration of water pollutants due to the vehicle exhaust, oil and rubber deposited on the streets by a higher concentration of traffic. ⁵⁷

During the winter months, rainfall will diminish shock loads by periodic flushing of the streets and thus preventing heavy pollutant build-up. To

54 Estimates are based upon waste standards per square foot as shown in Appendix H1, and upon the status of construction as projected in the February Draft EIS. Since construction estimates have now slipped approximately 6 months, the impact at each stage of the Master Plan development will be slightly less than projected here.

55 Dewatering will reach 0.72 mdg during the initial phase, but will be reduced to approximately 0.08 mgd after the cut-off walls are built and construction begins. Refer to Section IV, B., 1. of this Statement for explanation of dewatering process. Dewatering estimates received from McCue Boone Tomsick, Executive Architects.

56 The dry weather flow in 1978 is projected to be 65 mdg. SF Master Plan for Waste Water Management, September 1971, Plate V.1.

57 Refer to Appendix H2 for the estimated street runoff pollutants from YBC upon full development.

mitigate against shock loads during the summer months, the City has recently purchased new equipment to provide a program of daily flushing and sweeping of streets in YBC and other downtown areas. However, until this runoff flow is transferred to the Southeast Plant, it will have the negative effect of increasing the amount of run-off pollutant influents to the North Point Plan approximately as follows: 58

BOD ₅	0.3%
Suspended Solids	0.2%
Total Nitrogen	0.006%
Total Phosphorus	0.004%

Again, the percentage increase of pollutants caused by YBC area runoff is minor, but must be considered a negative impact since these pollutants are not properly treated.

The present underground sewer facilities in the project area have been adequate to handle the past combined sewage and storm drain flow without major flooding. 59 Based upon City studies and rainfall records, 60 no flooding in the project area has occurred since 1944 (when record keeping began) to such a degree that a complaint has been received by the City. Review of the weather bureau records shows a storm approaching a 50-year frequency in 1946, and another in 1972 which approximated a 100-year frequency. These did not flood basements or streets sufficiently to lead to any complaints. Therefore, it is anticipated that the facilities are adequate to handle the 1978 (dry weather) flow of 1.4 mgd (0.02 mgd existing, plus 1.38 mgd increase from new development) in combination with a wet weather flow as severe as that created by a 100-year storm. No negative impact is expected from area flooding.

58 Refer to Appendix H3 for total loadings at the North Point facility. The percentages presented here are based upon the maximum loadings occurring 365 days per year upon full development of the Project area, and are, therefore, likely to be somewhat inflated.

59 It is estimated that the dry weather flow prior to Redevelopment was approximately 2.0 mgd.

60 City of San Francisco, Division of Sanitary Engineering.

Phase II - July 1978 to December 1979

The present design capacity of the Southeast Plant is 30 mgd. It presently receives an average dry weather flow of 20 mgd. Following expansion, it will have a hydraulic capacity of 180 mgd. Treatment will be sized to handle an average dry weather flow of 100 mgd and a peak flow of 150 mgd at full efficiency. Although the plant will be able to process flows up to 180 mgd, flows in excess of 150 mgd will be processed at reduced efficiency.

The Southeast Plant is estimated to receive an average dry weather flow of 91 mgd ⁶¹ from the combined North Point and Southeast flows during the late 1970s. The bypass procedure will not be used, but in the current concept of the Master Plan it is estimated that overflows could occur eight times per year (16 hours) and the excess will not be treated, but will be directly discharged. The Plant will provide improved primary treatment to the North Point flow during the second phase.

The YBC dry weather flow at this time is estimated to be approximately 2.6 mgd ⁶² or 1.4% of the facility's capacity and 2.8% of the projected average dry weather flow to this Plant.

Whereas, the YBC flow will again have a minor negative impact by increasing the amount of improperly treated sewage by approximately 2.8%, it will not threaten the Plant capacity or contribute a large percentage to the total flow. The impact will be somewhat lessened during this phase through improved primary treatment and the deletion of the bypass procedure.

Phase III - January 1980 and After

By January 1980, the Southeast Plant is scheduled to provide secondary treatment to the North Point flow in accordance with the California Bay Area Regional Water Quality Control Board discharge requirements, with an ultimate long-term plan for tertiary treatment for all dry weather flows.

The YBC dry weather flow following full development is estimated to be 2.9 mgd, ⁶³ or 1.6% of the Plant's capacity and 3.2% of the average dry weather flow. This quantity will not threaten the Plant's capacity and will be properly treated in accordance with the Water Quality Control Board's discharge requirements.

⁶¹ Op. cit., Master Plan, Plate V-1.

⁶² Refer to Appendix H1.

⁶³ Refer to Appendix H1.

In addition to the treatment facility additions previously discussed, San Francisco plans to implement a program to control storm water overflows by building underground retention basins throughout the City, to catch high sewer flows and release them back into the sewer system after storms have subsided. Although this program is scheduled for completion in 1983, the high cost of the program is likely to mandate only gradual implementation. Consequently, storm overflows can be expected to continue, but at a reduced frequency, for some time in the future.

In summary, the negative impact of the liquid wastes generated by the YBC project will be a short-term impact which will occur between 1976 when the earliest development is completed and 1980 when secondary treatment facilities are available. Although, the ratio of YBC flow to the total flow of liquid waste at either of the Plants is only 2% to 3%, any increase in liquid wastes must be considered a negative impact until such time as the City has the capability to provide adequate treatment in 1980.

The proposed Plan Changes do not significantly alter the overall impact of the Project. The proposed hotel is estimated to contribute an average of 0.063 mgd and a maximum of 0.076 mgd of the Project's total 2.9 mgd. The office building originally proposed for this site would generate approximately 0.064 mgd. The three proposed housing sites are expected to generate approximately 0.026 mgd, as opposed to 0.095 mgd which would be generated by the office buildings originally proposed for these sites.

4. Solid Wastes

Solid wastes are discussed in three categories. Solid domestic wastes are those generated in the normal course of any day by the existing population in an area. Construction debris is the waste material unique to construction activities such as lumber, scraps, pipes and cement rubble. Excavation material or land fill is the soil and rubble removed from a site prior to construction.

Solid Domestic Wastes

All residential, commercial and industrial solid domestic wastes in San Francisco are collected by private scavenger companies under contract with the City. These wastes are transported to the City of Mountain View for disposal in a sanitary landfill. The contract term with Mountain View for this disposal extends to the end of 1975. It is currently being renegotiated for additional time and extension appears likely to at least 1980. If the City of Mountain View continues to receive refuse from San Francisco following 1975, the remaining life expectancy of the site at its present size would be approximately six years.⁶⁴ However, Mountain View is currently applying for an increase in the size of its site which, if approved, will extend the service period of this site for at least one year.

The City and County of San Francisco produces approximately 520,000 tons of solid wastes per year,⁶⁵ which constitutes very nearly all of the loading at the Mountain View site. The amount currently generated by the YBC Project area is estimated at 2,500 tons per year, but this amount will steadily increase as development is completed. Upon full development, the annual increase in solid wastes produced by YBC is estimated at 25,967 tons,⁶⁶ or approximately 5.0% of the City total. The steady increase in solid wastes from YBC over the next six years or the life of the Mountain View site, is estimated to reduce the life expectancy of that site by approximately 6 weeks. Future sites have not yet been identified, but it can be anticipated that solid waste from the completed YBC project will reduce their life expectancy by a small amount.

64 Discussion with John Carlson, Division of Engineering, City of Mountain View. (This area is to be developed into a Regional Park upon completion of the fill).

65 San Francisco Department of Public Works, Office of the City Engineer.

66 Refer to Appendix I.1., for the breakdown of the projected YBC generation of solid wastes.

The problem of finding future and adequate disposal sites for domestic wastes is a major problem for the City of San Francisco as well as for all California cities,⁶⁷ and the YBC project will have a negative impact to the extent that it exacerbates an already difficult situation. However, new procedures for handling waste and new disposal facilities will improve this situation substantially. The ABAG Regional Solid Waste Recycling-Composting Project, and the trend toward using the combustible portion of the solid waste for energy generation should reduce the future quantity of solid waste which must be disposed of.⁶⁸ Implementation of the ABAG Project is expected in another six to eight years.

To further mitigate against the potential impact of waste generation, the City plans to provide a compactor room to service all of the public facilities. Large underground service roads will be provided to allow easy access for waste collection-compaction vehicles. In addition, language will be added to each future land disposition and lease agreement, which will require private developers to incorporate facilities and designs to improve the building operating efficiency with regard to solid waste handling.⁶⁹ Private developers already under contract will be encouraged to make similar provisions.

The quantity of solid wastes would be slightly increased if the Plan were to proceed as originally approved, without the two Plan Changes, since the proposed 700-room hotel and approximately 400 units of housing will generate less solid domestic waste than the four office buildings originally planned for those sites.⁷⁰

67 California State Department of Public Health, Status of Solid Waste Management in California, 1968.

68 Environmental Protection Agency, comments in response to the Draft EIS. Refer to Part II.

69 Refer to Section IV.C.2c for a discussion of land disposition and lease agreements; Refer to Appendix I.2. for a letter expressing the Agency's commitment in this regard.

70 Hotel w/490 employees @ 3.5 lbs/capita/day and an average of 784 guests @ 2.5 lbs/capita/day x 365 days = 671 tons/year vs. Office building @ 2,550 employees x 3.5 lbs/capita/day x 260 days = 1,160 tons/year. Three housing projects w/500 residents @ 2.5 lbs/capita/day x 365 days = 228 tons/year vs. three office buildings w/2505 employees @ 3.5 lbs/capita/day x 260 days = 1,140 tons/year.

Construction Debris

It is estimated⁷¹ that a total of 33,000 tons of construction debris will be produced in the YBC area over the nine year construction phase, or an average of approximately 3,667 tons per year. These are to be disposed of by the individual contractors at a site in the City of Richmond with a life expectancy of 40 years. YBC debris will constitute approximately 0.61% of the site's annual loadings of 600,000 tons during the construction phase. Based upon the total loadings at the Richmond site over the next 40 years, the amount from YBC can be computed as reducing the life of the disposal site by approximately 3 weeks or 0.14% of its life expectancy. Therefore, there will be the minor short-term negative impact of adding to the demands upon the site until construction is completed.

Excavation Material

Unlike other forms of solid waste, excavated soils are a valuable commodity which are purchased to surcharge or fill land areas to prepare them for development.

Construction of the total YBC project will result in an estimated two million cubic yards of excavation materials. Surcharge materials can be used in such areas as the Port of San Francisco Pier 98 project for India Basin, and thus, the YBC excavation can have the positive impact of providing these materials to the project and saving the City the cost of contracting for them on the private market. Future disposal sites will be negotiated as additional excavation material becomes available. Since there is currently a demand for these materials, it is anticipated that YBC will have the minor positive impact of providing fill to areas of need, and thus, slightly reducing the need for developers to grade existing hillsides or other undeveloped areas to obtain the necessary fill.

71 The estimate was derived through discussions with the following contractors, based upon their experiences with the construction of highrise office buildings in San Francisco: C. H. Beck, Haas & Haynie, and Williams & Burrows.

As the excavation materials are hauled to the disposal sites, there is a potential for spillage along the haul route, which would increase the ratio of pollutants in the urban run-off in these areas. It has been estimated that the maximum amount of potential spillage could be 0.11% of the total excavation materials.⁷² Based upon approximately 110 lb. per cubic foot, this would constitute 2,970 tons over nine years, or an average of 0.9 tons per day.

The excavating contractor is responsible for disposal of these wastes and for the cleaning of any spillage. The haul route is inspected by the City and any spillage is reported to the contractor who must clean it himself or the City will clean and bill the contractor. For this reason plus the regular street cleaning and flushing program of the City, no shock loads are expected from the spillage; however, the average daily organic and silting pollution load along the haul route is expected to slightly exceed that from other areas of the City, resulting in a short-term negative impact during the construction phase.

In summary, the YBC project has the potential negative long-term impact of increasing the demand upon domestic waste disposal sites. During the period prior to completion, the pollutant content of urban run-off along the haul routes and the subsequent sediment transport to the Bay will be increased, but the mitigating measures discussed above will limit this to a minor short-term impact only. The project is expected to have the positive impact of providing needed landfill to India Basin and other areas in the City, thus relieving the need to obtain such fill from other less desirable sources.

72 ADL & URS, pg. V-K-7, based upon EPA's Compilation of Air Pollutant Emission Factors, 1972. (Officials of the S.F. Dept. of Public Works have indicated that this amount of spillage is far in excess of what their experience indicates will actually occur.)

5. Utilities

Preliminary studies of utility demand and consumption have been performed by Gayner Engineers for the Public Facilities and by Montgomery & Roberts, Engineers, for the Private Facilities and are used here as the primary source for analyzing utility impact.

Water

The San Francisco Water Department services a broad area, broken down into three divisions: Alameda, which serves portions of Alameda County; Peninsula, which serves most of San Mateo and part of Santa Clara Counties; and San Francisco, which serves the City.⁷³ Water for the entire service area is obtained from the Hetch Hetchy System, Calaveras and San Antonio Reservoirs, the Sunol Infiltration Galleries, the Pleasanton Well Field and the water shed of Pilarcitos, San Andreas and Crystal Springs Reservoirs.

The total water now available to the system from all sources is 350 million gallons per day (mgd). When needed in the future, expansion of transport facilities in the Hetch Hetchy System can increase the present available water by 100 mgd. For 1972-1973 the daily average water consumption in the San Francisco Division was 97 mgd and 144 mgd in the other two divisions for a total of 241 mgd. A 1969 report, "An Analysis of Water Demand, Supply and System Improvements," of the Water Department estimated the water demand of the three Divisions at 398 mgd in the year 2,000. Thus, the system has adequate water resources for the foreseeable future.

The San Francisco Division, which serves the City, is mainly supplied water by the Hetch Hetchy System. Water transported by Hetch Hetchy from the Sierra Mountains is stored in three lake reservoirs in San Mateo County. Of these, Crystal Springs is the terminal reservoir. It supplies ten main reservoirs located strategically throughout the City to store water to supply demands upon the distribution system of water mains.

Of the ten City reservoirs, University Mound Reservoir is the main source of water to the downtown area in which YBC is located and also supplies water to other of the reservoirs through interconnections to meet varying demands in all areas of the City. University Mound is actually two interconnected reservoirs with a total storage capacity of 140 million gallons. As water is used from this reservoir, it is automatically replenished from Crystal Springs.

73 Final Environmental Impact Report and Statement,
San Francisco Wastewater Management Plan, May 1974,
prepared by the City & County of San Francisco and the
U.S. Environmental Protection Agency.

Water consumption in the YBC project area will rise steadily until 1983, when it will level off following completion of construction and rent-up of all facilities. Maximum water consumption figures have been projected by Gayner Engineers, and by Montgomery & Roberts Engineers by assigning an estimated number of water consuming fixtures (toilets, lavatories, hose bibbs, irrigation and fountains, etc.) to each structure as proposed. From this total fixture count, a total water consumption rate was determined in millions of gallons per day (mgd). The increase in water consumption for the Peripheral Blocks area is projected on the basis of the estimated increase in population and average water consumption figures per capita.

Maximum water consumption is projected as follows:

<u>Source</u>	<u>Max. Consumption</u>
Central Blocks (Public Facilities) ⁷⁴	2.0 mgd
Central Blocks (Private Facilities) ⁷⁵	0.5 mgd
Peripheral Blocks ⁷⁶	<u>0.54</u> mgd
Total Consumption	3.04 mgd

This estimated maximum water consumption by YBC constitutes approximately 3.1% of the current total consumption within the City and 0.9% of the Water Department's total current water supply from all sources. Since the City has substantial reserve water capacity as well as the option to increase its water supply in the future, the small increase generated by YBC is not expected to have a significant impact.

74 Includes Sports Arena, Public Parking Garage, Convention Complex, Public Plaza, and the Central Heating and Cooling Plant which is a Public Facility located in the Peripheral Blocks.

75 Includes Apparel Mart, Hotel, Retail Shops, Theater, 4 Office Buildings.

76 Includes approximately 25,000 employees @ 20 gpd per capita and approximately 850 residents @ 50 gpd per capita. (Standard water consumption figures were taken from the National Plumbing Code, published by the American Society of Mechanical Engineers).

Modification to the existing water distribution system will consist of the abandonment of certain lines; addition of service mains and branches; and reconstruction and rerouting of certain supply mains which pass through the project area. Fire control and protection will be provided by a loop system which will supply water at a rate of 2,000 gallons per minute. This will be supplemented by an emergency 200,000 gallon reservoir system to provide fire protection for one hour and forty minutes. These modifications are designed to improve the supply and pressure to the area and should have the positive impact of improving service efficiency in the South of Market area.

Electricity

Electricity in the YBC area is supplied by the Pacific Gas and Electric Company through an underground grid network. Services will be available to all parts of the proposed project from both the existing underground distribution system and extensions from PG&E substations in the area.

Maximum demand loads for the proposed Public Facilities are estimated as follows: ⁷⁷

Public Parking Garage	3,200 KW
Exhibit Hall	10,000 KW
Meeting Hall	1,500 KW
Sports Arena	3,200 KW
Central Plant	<u>3,200 KW</u>
TOTAL	21,100 KW ⁷⁸

The proposed Central Block private facilities requiring electric power include a theater, hotel, apparel mart, retail commercial space, and office buildings. The electrical demand for these facilities has been estimated by Montgomery & Roberts, Engineers, at approximately 25,000 KW.

77 URS Research Company, Yerba Buena Raw Utilities Data, September 1973: letters from Gayner Engineers to PG&E, April 27, 1972, and May 10, 1972.

78 Refer to Appendix J₂ for a breakdown of the maximum connected and demand load.

Since building designs for much of the new construction in the peripheral area are not yet available, estimated electrical load is based upon type of occupancy and estimated floor area. On this basis, the electrical demand attributable to pending new development in the peripheral blocks is estimated at 20,200 KW.⁷⁹

Upon completion of the YBC development, the total estimated electrical demand would be increased over the present demand as follows:

Central Blocks, Public Facilities	21,100 KW
Central Blocks, Private Facilities	25,000 KW
Peripheral Blocks	<u>20,200 KW</u>
TOTAL	66,300 KW

On a straight line projection of figures furnished by the utility company, San Francisco's total electrical demand is estimated to reach approximately 966 megawatts in the year 1982 exclusive of the new YBC development.⁸⁰ Upon completion of construction, the YBC area would impose an additional 66.3 megawatts on this demand for an estimated total City demand of 1,032.3 megawatts. Thus, the YBC complex would constitute approximately 6.42% of the total San Francisco demand.

The utility's system capability is currently over 1200 megawatts and projected to continue to rise steadily.⁸¹ Thus, it appears that the addition of the Yerba Buena electrical load will not impose a strain on the utility's facilities.

The availability of energy resources in the 1980's cannot be projected at this time. In that a large percentage of the utility's generation of electricity is by means of gas or oil-fired steam boiler plants, the increase in electrical consumption attributable to new YBC development will contribute to the depletion of

79 Montgomery & Roberts estimate as amended to include approximately 400 units of low-income housing @ 279 kwh per unit per month on three peripheral sites, in place of 3 office buildings. (Refer to Appendix J₃ for the consumption of unit electrical demand.)

80 URS Search Company Yerba Buena Utilities Data straight line projections based upon a letter from PG&E to URS, dated January 18, 1973. (Refer to Appendix J₄)

81 Ibid

non-renewable natural resources. As a result of the present shortage of natural gas, the utility has been converting its generating plants to oil-fired operation. However, fuel oil is also in short supply, particularly the required low sulphur content oil. This could lead to a severe shortage of electricity in the near future. In view of this set of circumstances, although the utility company has adequate facilities to accommodate the increased demand attributable to YBC, it can give no firm assurance that electricity will be available in the required quantities at the time of Yerba Buena completion.

YBC will have a negative environmental impact to the extent that it contributes to the depletion of limited energy resources.

Natural Gas

The Yerba Buena Center area is presently served by a grid system which is supplied from mains entering San Francisco from San Jose and the East Bay. The grid system permits a flexibility of operation which minimizes the possibility of curtailed supply due to service interruption in any particular main. The system which served the area prior to redevelopment is still intact and usable. New services to the Yerba Buena Area will be directly from the existing system and from extensions of nearby facilities.

The Central Block Public Facilities requiring natural gas include the Convention Center, Central Plant, and the Sports Arena. The Convention Center and Sports Arena gas consumption is estimated by Gayner Engineers at approximately 9.5 million cubic feet (MMcf) per year. This is for exhibitors' requirements and food preparation facilities. The Central Plant, which will provide space heating to the Convention Center, Arena and a small portion of the project north of Mission Street will consume an approximate average of 37.5 MMcf per year.

The Central Block private facilities requiring natural gas include a theater, hotel, apparel mart, retail commercial space, and office buildings. This consumption is estimated by Montgomery & Roberts, Engineers, at about 187.5 MMcf per year.

In the absence of building designs for much of the new construction in the peripheral area, an estimate of consumption as a function of building area and type has been prepared. On the basis of an estimated 4.1 million square feet of new office and commercial space, annual consumption is estimated to increase from its current level by approximately 149.4 MMcf. Consumption for the approximately 400 residential units is estimated at 25.7 MMcf per year.⁸²

The increase in natural gas consumption attributable to the completed YBC development is as follows:

Central Blocks, Public Facilities	47.0 MMcf
Central Blocks, Private Facilities	187.5 MMcf
Peripheral Blocks (including the proposed housing units)	<u>175.1 MMcf</u>
TOTAL	409.6 MMcf

This represents 0.40% of the total projected San Francisco consumption of 102,300 MMcf for the year 1982.⁸³

Although with the planned utility extension, there will be adequate system capacity to supply the YBC requirements,⁸⁴ it is not possible to estimate the quantity of natural gas which might be available in 1982. Future supplies of natural gas are dependent on a number of factors which include size of allocations by the Canadian Energy Board and the U.S. Federal Power Commission, and the details of any curtailment plan which might be in effect at the time.

82 A standard consumption figure for the office and commercial space of 50 Btu per sq. ft. was employed. A standard of 64,200 cf per unit per year for the housing was employed. (Refer to Appendix J₅ and to HUD Handbook HPMC-FHA 4500.6 SF Suppl. 1, "Selection of Utilities for Subsidized Housing in Region IX.")

83 Refer to Appendix J₆, "Projected Consumption Trends."

84 Gayner Engineers, Plumbing Utilities Report and Cost Estimates for Yerba Buena Center Central Blocks Area, October 25, 1971.

The use of natural gas in the Yerba Buena complex should be considered a negative impact to the degree that it contributes to the depletion of a natural resource.⁸⁵

Summary

The YBC project will not adversely effect the capabilities of the facilities which are to supply water, electricity and natural gas to the area, and its impact upon the supply of water is negligible. However, it will have a potential negative impact by adding to the depletion of natural energy resources. YBC is projected to constitute approximately 6.4% of citywide electrical demand and 0.4% of citywide gas consumption; with the uncertainty of available resources, it is not possible to determine at this time what portion of the total demand can be met in the 1980's.

The proposed Plan Changes are estimated to decrease the overall demand for water and electricity in the Project area and increase the demand for natural gas.⁸⁶

To mitigate the potential impact of energy consumption, the public facilities will be served by a Central Heating and Cooling Plant with variable controls which will provide economies of scale and, thus, lower overall energy consumption. The plant will not use electric energy due to the waste produced in converting heat to electricity,⁸⁷ but will burn natural gas directly. The private facilities in the Central Blocks area will be served by a central chilling plant.

85 On a national basis, the YBC consumption represents 0.00099% of U.S. production and net imports for the year 1971, the only year for which totals are available.

86 Refer to Appendix J7 for the computation of the utility impacts of the proposed Plan Changes.

87 Stein, Richard G., "Architecture and Energy," Architectural Forum, July 1973. "...electric heating is basically wasteful of primary energy, largely due to the three to one inefficiency in converting primary fuel to electricity..." If primary fuel (oil or natural gas) is burned directly, even if it is burned at only 60 percent efficiency, it will use only half as much fuel as the needed heat supplied by electricity. (Article and energy information supplied by San Francisco Tomorrow.)

Lighting in the exhibit hall and street lighting in the project area will be variable, so that the intensity of light can be selectively adjusted to changing needs. The concourse fountain will also have variable controls in order to program its operation in accordance with the time of day and level of activity in the concourse area. Thus, energy for lighting and for operating the fountain will be conserved during times when full operation is not required. In addition, City efforts to shift project users from the automobile to public transit is expected to have an indirect effect upon vehicular gasoline consumption.⁸⁸

Language will be added to each future offering document and land disposition and lease agreement, which will require private developers to incorporate facilities and designs to improve the building operating efficiency with regard to energy consumption.⁸⁹ Private developers already under contract will be encouraged to make similar provisions.

88 Refer to Section IV.E.1., "Traffic" for a discussion of the City efforts in this regard.

89 Refer to Section IV.C.2.c for a discussion of land disposition and lease agreements; Refer to Appendix I.2. for a letter expressing the Agency's commitment in this regard.

C. Land Use and Aesthetics

1. Land Use Relationships

a. Relationship of Project Area to the City

The proposed YBC development is of such a major size that surrounding land use developments are not expected to have a major impact upon the Project itself. However, the Project may be expected to have a significant impact upon the surrounding area, as well as impacts upon areas beyond the periphery, including the Downtown Business District, the Financial District, the transient and residential hotels, and BART.

Certain land use impacts have already occurred in the City as the result of the proposed Project. Most notable has been the shift of low-income residential units from within the project boundaries to other locations. Approximately 3,000 residential units in the Project have been demolished. Virtually all of these units were hotel rooms, many were substandard, and approximately 500 had been vacant for several years due to their uninhabitable condition.

Replacement units are being provided through publicly-financed construction and rehabilitation programs with the greatest percentage of actual and proposed units being in the area North of Market Street, known as the Tenderloin (approximately 669 units), and along the southwestern periphery of the Project area (approximately 1,229 units).⁹⁰ The shift has generally resulted in the upgrading of these areas by replacing substandard or blighted conditions with standard housing units. This shift will increase the number of standard units which are available within the tenants' abilities to pay.

90 The latter includes the completed Clementina Towers and Alexis Apts., the Salvation Army Apts. which are near completion, and the four proposed housing projects in Plan Change II. Refer to Section IV.D. for a fuller discussion of relocation and replacement units.

In analyzing the projected land use impacts of the completed Project, in addition to HUD's concept of land use principles, reference is also made to the City's own land use objectives as contained in the San Francisco Downtown Study, prepared by the Department of City Planning in December 1966. This study provided the basis for revised zoning in the Downtown area and guiding principles for the future direction of development.

The single predominant goal presented by the Study was the "fulfillment of all the potentials of the downtown area through the maximization of development in a manner consistent with community values and efficient organization of functions." The basic public policy expressed was the encouragement and direction of new growth toward the South of Market in order to:

- maximize the use of Market Street as the central transportation corridor;
- relieve pressure for development in the areas north and west of the Financial District including Chinatown, Nob Hill, North Beach and Jackson Square;
- provide area for office space of lesser intensity and with better freeway access; and
- relieve traffic pressure in the core area by moving traffic-oriented development and new parking facilities closer to the freeway access points.

The proposed office space for YBC is expected to accommodate the major office space demand which will be generated during the coming decade, and, thus, will provide the desired new direction for the growth of the Financial District during this period. In this way, it will provide for growth in a planned manner, and will relieve the demand pressure for office space development in the areas north and west of the Financial District, thus helping to preserve the unique character of those neighborhoods.

Following completion of the Project, the further ability of the South of Market area to attract future growth will depend in large part upon the prevailing land costs. If land values are substantially escalated as the result of improvements in the area, the pressure for development in other, less expensive directions could again arise. Thus, new measures would be required to divert office development away from the areas north and west of the Financial District.

While attracting office development to the South of Market area, the proposed YBC development can be expected to have a negative impact upon existing older office buildings in the downtown area, which may be forced to compete with the new development. Similarly, current convention and assembly structures will be negatively impacted until such time as the city-wide demand increases to a point where the capacities of both the new and existing structures are required.⁹¹

The proposed Project will take advantage of and reinforce the nodal pattern of BART and the other public transit systems along Market Street and in the surrounding area. It is likely to improve BART's financial viability through the generation of increased passenger business. Direct concourse access will be provided to the Powell Street BART station.

A potential negative impact is the anticipated pressure and demand for increased off-street parking in the areas surrounding the developed Project. The vacant lots within the Project boundaries presently provide a great quantity of all-day temporary parking spaces available to the Downtown/Financial District area. Removal of these lots, combined with the increased transportation demands of project users, is likely to result in pressure for the development of new facilities in adjacent areas. Such development, if permitted to occur, would displace existing adjacent uses, including residential, and would increase traffic congestion in the area.

The City's Chief Administrative Officer has proposed steps to avert such an impact by severely limiting parking in the area and by increasing transit services and inducements.⁹²

b. Relationships of the Plan Changes to the Project

Generally, the planned development of the area will result in the removal of mixed and incompatible uses, the creation of structures consistent with current zoning regulations, and the upgrading of land values in the area. However, exceptions to this are the proposed housing units which, although providing standard units and ancillary services for the elderly, are planned for an area generally zoned for commercial, light industrial and downtown support uses.

91 Refer to Section IV.F., "Economics and Financing."

92 Refer to Section IV.E.1. of this Statement, "Traffic."

Housing Site #1 (at Howard and Fourth Streets) is currently zoned for Downtown Support use (C-3-S); however, residential development is permitted as a conditional use. Sites #2 (on Clementina Street between Fourth and Fifth Streets), and #3 (at Harrison and Fourth Streets) are zoned for Light Industrial use (M-1), and new residential development is prohibited unless authorized as a planned unit development. Thus, a zoning change could be required to permit the developments of Sites #2 and #3.

If completed as planned, the proposed units will also be partially in conflict with Objective 3, Policy 1 of the Residential Element of the City's Comprehensive Plan. This policy calls for the distribution of low-income housing throughout the City, with the goal of assuring that the ratio of low-income housing to total housing in any one area does not exceed the citywide ratio of low-income housing to the total housing stock. The citywide ratio is currently 3.14%, as compared to 10.6% in the South of Market area. However, the policy further states that "in application, the City's use of this distribution ratio should be flexible enough so that additional low-income housing can be constructed in those areas exceeding the citywide ratio when there is a desire on the part of the community involved to provide more public housing."⁹³ In the case of YBC, there has been a clear expression of such interest as evidenced in the TOOR litigation, and thus, the proposed housing will have the positive impact of meeting the needs and desires of the community.

Although the proposed housing has the potentially negative impact of increasing the concentration of low-income housing in one area, and of providing units in an area which is generally incompatible with residential uses, it also exercises a positive impact in that it is consistent with Objective 3, Policy 2, of the Residential Element, which calls for an increase in the supply of low-income housing in the Bay Area. A further potentially positive impact of the proposed housing would be to enhance the existing units, by increasing the residential nature of the area, and by providing an added market for attracting appropriate commercial and public services to the area.

The proposed hotel is planned in the Central Block area, between Mission and Howard Streets, along the eastern side of Fourth Street. This use is consistent with the City's Zoning Ordinance, and is complementary to the other land uses proposed for the

93 "Improvement Plan for Residence", The Comprehensive Plan of San Francisco, prepared by the Department of City Planning, February 1971, p. 23.

Project. The hotel is mutually supportive with the proposed Convention Center, Apparel Mart and Arena uses, and will also serve the out-of-town visitors to the office buildings, which border the hotel on three sides. By its convenient location, it is projected that the hotel will do adequate business and will provide easily accessible lodging for the users of the Project area. Since the proposed 700 rooms constitute only 2% of the total transient hotel use-days in San Francisco, the proposed hotel is not expected to significantly impact hotel business in other parts of the City.⁹⁴

Summary

The land use relationships and impacts of the proposed Project are mixed. As a planned development, it is expected to remove blight and to help direct the growth of downtown during the next decade in accordance with local policies and guidelines. It is expected to take advantage of the existing transit system and to help reduce the pressure for commercial growth in other areas of the City. A potentially negative impact upon the City environment is the possible drain of demand away from existing facilities. The potential also exists for the proliferation of parking use in the areas adjacent to the Project area. However, it is anticipated that this latter impact will be prevented by City efforts to impose parking restrictions.

The proposed housing units in Plan Change II also have a mixed impact. Although incompatible with City policy in several areas, they respond to the desires of the community, and provide additional standard low-income units to elderly tenants at rents they can afford.

The proposed hotel appears compatible with other land uses.

94 Refer to Section IV.F. of this Statement, "Economics and Financing," for a further discussion of the impact of the hotel.

2. Urban Design

a. Urban Design Element of the San Francisco Comprehensive Plan

The Urban Design Plan for San Francisco adopted by the City Planning Commission in 1971, establishes policy guidelines for physical development in the City. Objectives of the Plan which effect the YBC area include the designation of the type of street lighting for Third and Fourth Streets; the preservation of St. Patrick's Church and view lines along major east/west arterials; and general guidance for land use relationships, bulk and spatial relationships, light and shadow relationships and for street tree plantings.

The height and bulk districts designated in the Plan were adopted as City ordinance by the Board of Supervisors on August 6, 1972. Although construction in the Central Blocks area and portions of the peripheral area are legally exempted from these limitations,⁹⁵ the height and bulk criteria, along with other provisions of the Plan, serve as valid standards for assessing the design quality of the project.

The Urban Design standards, in many instances, are not sufficiently specific to provide precise guidelines. However, the Project appears to conform to the general guidelines, with a few exceptions noted below.

b. Potential Design Impact

Although building designs have not been developed for any of the private structures in the Central Blocks area, with the exception of preliminary drawings for the apparel mart, a review of the gross floor area building envelopes and site plans provides an impression of the potential design impact of the proposed project.

The YBC Central Block area has been designed as an urban "place." It is, in many ways, a self-contained entity, with vitally interrelated functional elements. The effect of this design technique is to produce a certain trade-off between the "macro" and "micro" aesthetic effects of the area. In general, the Central Block area of the Project will be less appealing to an external viewer due to its introspective nature, and more appealing to an individual participating within the Central Block area.

95 "The City Planning Code provides for exemption from code bulk standards for development in a Redevelopment Project Area where a redeveloper has been formally selected by the Redevelopment Agency prior to August 26, 1971 in accordance with an agreement that specifically committed the City to a building bulk configuration not consistent with code standards." Addendum A to the Draft EIR, Department of City Planning, July 1973.

(1) Macro Effect

A major design impact and purpose of the remaining project activities would be the removal of what are now generally blighted conditions, consisting primarily of building foundations, fences, temporary surface parking lots and a few isolated structures.⁹⁶ The proposed action would profoundly change the use of the site, the visual appearance of the area, and the aesthetic experience of anyone entering or viewing this portion of San Francisco. The impact of this development is magnified due to the Project's strategic location along entrance routes to the City from points east and south.

To the external viewer, the development of large buildings will visually extend the financial and central business districts of San Francisco into the project area, and around the central Market Street mass transit corridor, as recommended in the Urban Design Element.⁹⁷ The development of an arena of the proposed height, bulk and design would create a significant visual landmark in San Francisco. However, the positive features of creating a unique building form which expresses the arena's community significance is likely to be somewhat dwarfed by the bulk and height of surrounding buildings.⁹⁸

96 Exceptions to general scene include a few buildings in the southeast portion of the Project area which have been developed or rehabilitated under owner participation agreements and under the urban design control of the Agency. These structures are generally well-sited, individually have architectural merit, and have visibly extended the parameters of the financial district. Additionally, on the southwestern perimeter of the area, a low-rent public housing project has been completed, which includes courtyards and landscaped areas; and the Fifth and Mission Street public parking garage has been extended into one corner of the Project area.

97 Objective 3, Principle 3: "Clustering of larger, taller buildings at important activity centers (such as major transit stations) can visually express the functional importance of these centers."

98 "Urban Design Plan Element, San Francisco Comprehensive Plan, May 1971, Objective 3, Principle 9. "Unique building forms can appropriately signify major community facilities."

Principle 8. "The use of unusual shapes for tall office, hotel or apartment buildings detracts from the clarity of urban form by competing for attention with buildings of greater significance. The juxtaposition of several such unusual shapes may create visual disorder."

Development of the Central Blocks as proposed would create a visually defined and separate locational entity within the larger Project area, abruptly rising between Third, Market, Fourth and Folsom Streets, and easily identified as a distinct urban place.

The experience of a person entering the project area along Third and Fourth Streets would be one of heavily trafficked streets with massive buildings rising from architecturally polished and landscaped sites. Along Fourth Street, a linear wall effect would be created by the hotel and office building, forming a visual dividing line at Fourth Street.

Since the Peripheral Blocks area was not included in the master site plan for the Central Blocks, it is somewhat excluded from the theme of the urban place. Although the City's Urban Design consultant reviews the two areas in their larger context, the extent of visual coherence between the two areas is likely to be limited primarily to similar contemporary architectural and landscaping styles and comparable height and bulk of the office buildings.

Pedestrian access to the Central Blocks is facilitated along Market Street by a concourse connecting with the BART station. Transition levels and arcades are provided from Third, Fourth, Howard and Folsom Streets; however, there is a lack of open, spacious access to the Project area from Fourth and Folsom Streets. This somewhat closed means of public access from several of the streets contributes to the self-contained aspect of the Central Block area.⁹⁹ However, special services will be provided to accommodate the handicapped, including such features as special curb cuts, railings and elevators in accordance with State law.

⁹⁹ Op. cit., "Urban Design Element," Objective 3, Principle 17. "Elevated pedestrian levels in large developments, if they relate visually and functionally to the street level pedestrian system, are easy to find and use and contribute to the consistency of development. A clearly expressed transition from an elevated pedestrian system to the sidewalk ties the two systems together visually and functionally." Objective 4, Principle 15. "A space too far above street level loses visual contact with the street."

Although attempts have been made to reduce the visually massive nature of the Central Block area by undergrounding the exhibit hall and public parking garage, the remaining wall effect on the west side of the Central Blocks still is likely to minimize the feeling of participation and limit the eastwest views of the passing pedestrians and of persons in passing vehicular traffic and in surrounding development, including residents of the existing and proposed low-income housing units.

(2) Micro Effect

The experience of a person entering the open air public space of the proposed Central Block area would be that of entering a three dimensionally complex urban space of large scale.

The major entrance to the area from Market Street would be marked with a thirty-six story office building, the start of a three-block long Central Concourse and a series of shops. The office building is comparable in size to other new office buildings being built on the South side of Market Street and is likely to cast a shadow on the concourse and on the Phelan Building on the North side of Market Street at certain times during the day. However, the concourse will have morning sun and every part of the Phelan Building will experience direct sunlight at some portion of the day. The Concourse extends at nearly Market Street elevation for the length of the three blocks, but a second level is also developed approximately half way between Market and Mission Streets. On the lower level a park is to be developed around the St. Patrick's Church historical landmark. The setting of the church changes from that of a small church tucked in between commercial service buildings and parking lots to that of being an architectural ornament in the midst of prestigious new buildings and a major urban open space. The church is likely to be enhanced by the park and greenery surrounding it, but somewhat dwarfed by the other more massive buildings in the Project.

Across Mission Street the concourse opens to a width of 200 feet. Major access to this area is to be by way of pedestrian overpasses from both the North and South blocks, which will relieve conflict with vehicular traffic. In addition to the structures that define the space of this central plaza area, major features will include a large fountain, a display of art work, an enrichment of the space with plant materials, a multilevel pedestrian circulation system, and canopy designed to diffuse wind currents.

The development on the Third Street side of the plaza is to include a nine-story Apparel Mart building. Preliminary plans call for a tiered structure with an articulated facade stepping up from the street level. From within the complex, the scale of this structure is softened somewhat by the elevated concourse walkway which tends to divide the building's bulk. Relatively low level hotel facilities and shops are to flank the concourse to the west, which would open the concourse to the sun. Further to the west is the proposed twenty-four story hotel. The currently planned gross floor area for this structure exceeds the current urban design bulk restrictions by approximately 130 feet in length and 105 feet in diagonal dimensions. An open space exists between the hotel and the low-level facilities and, if constructed is likely to be constantly in shade except for the early morning hours. Unless the hotel structure is adequately articulated and sited, wind currents could build up against the structure, thus inhibiting the growth of plants in this area and reducing the pleasantness of entering or exiting either facility. Both shadowed open spaces and flat plane buildings are contradictory to guidelines established in the Urban Design Element.¹⁰⁰

100 Op. cit., "Urban Design Element," Objective 3, Policy 15, "Plazas or parks located in the shadows cast by large buildings are unpleasant for the user;" and Objective 2, Policy 3, "External details in building facades, entries, stairways, retaining walls and other features provide visual interest and enrichment and are consistent with the historic scale and texture of San Francisco;" and Policy 4, "New blank facades introduced into areas of older, more detailed buildings detract from neighborhood character."

In the south block of the Central Block complex, the concourse narrows again and becomes principally an entrance to meeting rooms and the Sports Arena. To the west side a similar wind and shadow design problem appears to exist between the office buildings and the low-level meeting rooms. The office building is approximately the same size as the proposed hotel and similarly exceeds the current bulk limitations. The Sports Arena, which could potentially be a high generator of evening and BART traffic, is currently located one-third mile away from the BART station. This extended nighttime distance between BART and the Sports Arena could tend to discourage mass transit use by Sports Arena patrons, unless the area is adequately lighted and patrolled. Conversely, since indications are that the large majority of patrons will travel by car regardless of the location,¹⁰¹ the Arena location is consistent with local policy in that it is providing easy access to the parking garage and freeway ramps, and keeps major traffic flows away from the downtown core area.

The experience of a person within any of the project's tall buildings will be a combination of distant vistas, a view of portions of the project's open space and large expanses of roof area of other buildings. What is done with the design of low roof tops within the project will have a significant effect upon the aesthetic appeal of the final development and its long term maintenance. The preliminary drawings and the apparel mart include human scale roof-top landscaping, and similar landscaping is planned for the low-level roof top of the hotel. The combination of the roof-top treatment, plant materials in the three block long plaza and landscaping along the base of the building has the potential of introducing a great quantity of living plant materials into the heart of the City.

101 Refer to Section IV.E., of this Statement, "Traffic, Noise and Air Quality" for a further discussion of the projected YBC traffic patterns.

c. Urban Design Guidelines and Procedures for Achieving Urban Design Objectives.

(1) Redevelopment Plan

The Yerba Buena Center Redevelopment Plan sets forth land use and bulk controls. It also states that "the Redevelopment Agency shall evaluate architectural plans for new buildings and buildings to be rehabilitated to ensure that each building will be a distinguished architectural expression which may have a distinctive character and yet be harmonious with adjacent buildings in the project and to ensure that the buildings will conform with the urban design concepts on which the Redevelopment Plan is based." The Plan also requires landscaping and establishes the right of the Agency to set detailed design criteria. Sign controls are explicitly stated and the Plan establishes a procedure for Agency review of architectural, landscaping and sign plans and specifications.

(2) Master Plan for the Central Blocks

This Master Plan was developed under contract to the Agency and the City to govern site development of project land within the blocks bounded by Market, Third, Folsom and Fourth Streets. The Master Plan was reviewed and approved by both the Redevelopment Agency and the San Francisco Art Commission. Together with the YBC Public Facilities text dated March 6, 1972 (Blue Book), the Master Plan sets forth a set of three dimensional controls governing spatial relationships, graphics, development of public space, circulation and location of permitted land uses within the three dimensional scheme. Approximately \$13,000,000 of the Public Facilities bond issue and 1% of the private development costs are to be allocated for art objects, plazas, and landscaping in the Central Blocks area, and over one-third of the ground level area is to consist of public walkways, open areas and parks. Minor variations from the Master Plan and the detailed implementation of its governing concepts are to be permitted only with the concurrence of architectural consultants (with fees to be paid by the developers) and of the Agency's Urban Design staff. Ownership of the Public Facilities sites will initially be retained by the Agency and development will take place by lease agreements with the City and County of San Francisco.

(3) Lease Agreements for Central Blocks Private Development

Each lease agreement for sites in the Central Blocks area contains a section on plan approvals. In addition to detailed use and bulk restrictions, they reserve to the Agency the right to make final approval on color, surface texture, materials, graphics, lighting, landscaping and plant materials. They also require the lessee to pay for the architectural review of the lessee's plans and specifications by an architectural firm retained by the City, not to exceed \$50,000.

(4) Peripheral Blocks

The Master Plan described above does not include the development in the Peripheral Blocks. Thus, there is no urban design plan for the project as a whole, but rather a master site plan for the development of three blocks and a control scheme to supervise architectural design in the rest of the project on a site-by-site basis. This supervision is maintained through offering documents and land disposition agreements.

Each offering document for parcels outside of the Central Blocks contains a statement on architectural design review, including a requirement for the hiring of an architect (and, when necessary, landscape architects and graphic designers); a statement of generalized urban design objectives; and a design review procedure for assuring achievement of design objectives. The offering states that failure to obtain Agency approval of the preliminary plans will result in breach of the contract, in which case the good faith deposit may, at the option of the Agency, be returned to the redeveloper.

Each land disposition agreement also contains a provision for architectural design review, including provisions for review of the developer's preliminary plans as well as review of construction plans and specifications. These agreements also reserve to the Agency the authority to make final determinations as to the developer's conformance to the Agency's design objectives for this project.

(5) Adequacy of Guidelines

The Agency's guidelines described above establish high design standards for the Project area, and give the Agency substantial control over development in the Central Blocks to assure conformance to these standards. The interlocking nature of the entire package means that any variation from the basic scheme or standards could have substantial ramifications for the entire development and, therefore, makes a focal point of control doubly important.

The exclusion of the Peripheral Blocks from the Master Plan Design means that the Agency's control over design in these areas will have to be more reactive than directive. The opportunity to establish development relationships between all Project sites is, therefore, somewhat weakened.

d. Summary

As in any design package, there are trade-offs in the design of the Yerba Buena Center project. Although tending to be introspective to the external viewer, the Central Block area concurrently provides its participants with a major plaza and open area away from the noise and conflict of vehicular traffic. The entire Project area visually extends the Financial District and capitalizes upon the major transit corridor, in accordance with City objectives.

In the process of creating a sense of "place" and an integrated project, certain elements of participation are lost to passers-by. Attempts to combine the features of internal and external participation have been made through the design of a street level concourse from Market Street, and a tiered apparel mart, gradually rising from street level. As the design of other structures proceeds, most particularly the hotel and south block office building, it is the intent of the private developer to provide articulated facades and similar gradual transitions, as provided in the apparel mart. Particular attention will be given to avoiding massive, flat plane designs which could overwhelm other project elements and create undesirable wind and shadow effects.

All designs will be subject to the review and approval of the Redevelopment Agency, the City's Executive Architects, and the City's Urban Design Consultant.

3. Historic Places

As the result of comments and concerns raised by interested groups in response to the Draft Environmental Impact Statement,¹⁰² an architectural historian was retained to conduct a more thorough survey of the project area. His primary responsibility was to identify those structures which could be considered potentially eligible for nomination to the National Register of Historic Places. However, he also provided assessments of other structures in the area which, although not of National Register caliber, were nevertheless considered worthy of being noted.

The Jessie Street PG&E Substation

The building of primary interest, and the only one in the project area considered to be of National Register calibre is the Pacific Gas & Electric substation on Jessie Street. "The first electrical substation on this site was built in 1881, and was redesigned by Willis Polk in 1905; after the 1906 earthquake and fire, Polk produced a new and more ambitious design which was executed, in a couple of stages, between 1906 and 1909." The structure is considered significant from both an architectural and historic perspective. It is representative of "the style which Polk developed in the years immediately following the turn of the century;" it marks the earliest attempt by the PG&E Company "to make a substation the opportunity for serious architectural design;" and "it is one of the most impressive and elegant examples of Classical design to be found in this area."¹⁰³

This structure was originally planned for retention and rehabilitation in the Urban Renewal Plan. Following notification by PG&E that they would not undertake rehabilitation, and HUD's concurrence that it would not be economically feasible for them to do so, the structure was scheduled for acquisition and demolition. However, plans were made by the Agency to retain a portion of the facade as an element of the pedestrian concourse.

102 Refer to Part II of this Statement.

103 Turner, Paul V., "Report on the Architectural Significance of Existing Structures in the Yerba Buena Center Area, San Francisco," September 10, 1974. Refer to Appendix K for the text of the full report.

In May 1974 an application was submitted by the Foundation for San Francisco's Architectural Heritage to the California Historical Landmarks Advisory Committee, requesting that the structure be nominated to the National Register of Historic Places. In July 1974 the Advisory Committee reviewed the application and recommended nomination to the State Historic Preservation Officer. The structure was placed on the Register on September 6, 1974. Based upon this action and upon the review by the architectural historian, additional studies and proposals for preservation will be developed prior to taking any action affecting this structure.

Although all required HUD approvals have been previously granted for acquisition and demolition of this structure, the Agency will defer action on this structure until such time as the appropriate course of action can be developed in consultation with the State Historic Preservation Officer, interested citizens and organizations, and the National Advisory Council on Historic Preservation.

St. Patrick's Church

The other structure in the project area of special interest to the architectural historian is St. Patrick's Church. Although not considered eligible for nomination to the National Register, this church is considered "fully worthy of preservation and maintenance."¹⁰⁴

Despite an active growth period in the Project area prior to 1906, including the construction of numerous buildings for commerce, industry and residences, few structures remained standing after the earthquake and fire. Among those which did was St. Patrick's Church. The Church, which was dedicated in 1872, is a particularly good example of Victorian Gothic architecture. It is the only structure in the Project area which is included on the list of designated landmarks developed by the San Francisco Landmarks Preservation Advisory Board and approved by the City Planning Commission and the Board of Supervisors. As such, the Church will be retained, renovated, and appropriately landscaped with a small park area. It will serve as an exceptional architectural and historical landmark along the major concourse area of the Project.

Other Properties

Following is a list of other structures in the project area considered to possess some architectural interest worth noting: ¹⁰⁵

- 653 Harrison Street - small industrial building
- 657 Harrison Street - small industrial building
- 665 Harrison Street - small industrial building
- Fourth Street (between Clara & Shipley) - Senior Citizens
Activities Center (Originally, Police Station)
- 250 Fourth Street - S.E. Massengill Pharmaceutical Company
- 179-81 Jessie Street - Jessie Hotel
- Corner of Mission and Third Streets - 2 office buildings;
1 vacant hotel
- 244 Stevenson Street - office building
- 315 Fourth Street - meat company
- Fourth Street (between Howard & Folsom) - "Place of New
Beginnings"

Of these structures, the first five listed are being retained and rehabilitated in accordance with owner participation agreements between the Agency and each of the owners.

Due to the economic infeasibility of rehabilitating the remaining structures, the Agency was unable to successfully negotiate owner participation agreements with the owners and, thus, was obligated to acquire the properties.¹⁰⁶ All of these structures are now scheduled for demolition. However, the Agency has agreed to provide photographs of each of the structures to the San Francisco Landmarks Preservation Advisory Board prior to demolition.

105 Refer to Appendix K for a fuller description of these structures.

106 These determinations were made in accordance with Section 307 of the Housing Act of 1969.

4. Archaeology

No exploratory diggings have been made in the area to determine the existence of items of archaeological significance. Although the area has long been developed, and no valuable minerals or items of significance have been exposed in the course of the soils investigations, there is reason to believe that some such items may exist.

In 1910 an Indian shell mound was uncovered in the area of south of Harrison Street, between Third and Fourth Streets, just outside the project area. In addition, an ancient human skeleton was uncovered in the course of the recent BART excavations just north of the project area.¹⁰⁷ Based upon these indications of potential archaeological resources, the Agency will invite the participation of interested archaeological organizations in the on-site monitoring of the public facilities excavation activities. Any uncovered articles will be studies in situs and appropriate preservation measures will be taken.

5. Cultural Places

Cultural places are those which provide opportunities for groups and individuals to enjoy, practice, maintain or enhance concepts, habits, skills, arts, instruments or institutions, usually of a particular people and/or time.

Prior to the earthquake of 1906, such places as Union Hall and the Grand Opera House were the principal foci for on-site and near-site social/cultural activities. Post earthquake activities of a significant scale in or around the Project area have been, for the most part, minimal. The two remaining motion picture theaters in the area were demolished a few years ago along with other commercial type activities housed in buildings on Market Street.

107 Interview with James Heid of the Adam E. Treganza Anthropology Museum of California State University.

In recent years, the Project area has provided a cultural and social environment which has served the needs of the elderly, low-income residents of the area, including such places as social service centers and low-cost restaurants and commercial establishments. Many of these facilities will be shifted to the western periphery of the Project area, and some will be lost completely.

The proposed YBC development will provide new cultural places, including the proposed indoor sports arena, the meeting rooms and exhibit hall, and a legitimate theater. These places are proposed to accommodate activities such as sporting events, exhibits, displays and live theatrical performances in a central complex providing an array of spatial arrangements and larger capacity than any existing San Francisco facility. These activities are expected to increase the quality and variety of cultural activities available to San Franciscans.

D. Social

Social impact is here defined as the effect which the proposed Project development is likely to have upon persons currently living and working in the area who are to be displaced by project activities. The broader city-wide social implications of the Project -- e.g., those related to land use alterations, employment levels, traffic density, etc. -- are discussed in each of the specific impact sections.

As of October 1, 1973, there were 499 individuals, 26 families and 130 business firms remaining to be displaced from the Project area.¹⁰⁸ By comparing the relocation needs of each of these to the relocation resources available, an attempt is made to assess the extent to which displacement is likely to be socially disruptive.

1. Rehousing of Individuals and Families

a. <u>Rehousing Needs</u> ¹⁰⁹		Individuals %		Families %	
Rent paying ability:	\$48.00 or below	370	74.2	12	46.3
	\$48.00 - 64.99	31	6.2	2	7.7
	\$65.00 - 84.99	31	6.2	6	23.1
	\$85.00 and up	31	6.2	4	15.4
	unknown	36	7.2	2	7.7
		499	100.0	26	100.0
Unit Size:	hotels/studios	499	100	0	--
	1-bedroom	0	--	13	50.0
	2-bedroom	0	--	3	11.5
	3-bedroom	0	--	4	15.4
	4-bedroom	0	--	6	23.1
		499	100	26	100.0
Area of Preference:	South of Market	119	23.9	3	11.5
	North of Market	114	22.8	3	11.5
	Outer Mission	18	3.6	1	3.9
	North Beach	20	4.0	0	--
	Western Addition	19	3.8	2	7.7
	Out of City	17	3.4	0	--
	No Preference	158	31.7	16	61.5
	Other	34	6.8	1	3.9
		499	100.0	26	100.0

¹⁰⁸ These figures represent approximately 33% of the individuals, 15% of the families, and 20% of the business firms originally scheduled for displacement; thus, the major portion of relocation was completed prior to October 1, 1973. Since the publication of the Draft EIS, the total number of residents has been further reduced to approximately 300 individuals and 20 families; the characteristics of these remaining persons remains essentially the same as the breakdown described above.

¹⁰⁹ Results of the Redevelopment Agency survey of the remaining workload, conducted in September 1973.

b. Social Needs

As discussed previously in this Statement, ¹¹⁰ the majority of the individuals in the project area prior to redevelopment were single elderly males with an income of less than \$200 per month, who lived primarily in residential hotels. The majority of the families had an income of less than \$400 per month and were primarily renters. Although substantial relocation has taken place in the ensuing years, the characteristics of the remaining population exist in approximately the same proportions. (Refer to Exhibit 17 for the breakdown of the characteristics of the remaining population.)

The predominant characteristics of this population, such as old age, low-income, high incidence of disease (including alcoholism) and high dependence upon public income and other services, create a special need for certain social services and facilities proximate to the rehousing resources. These include easily accessible public transportation; low-cost commercial establishments, including restaurants, drug stores and grocery stores, health clinics; and social service centers.

c. Rehousing Resources

Pursuant to a Court Order of November 1970 resulting from the TOOR litigation, ¹¹¹ the City and the Agency proceeded to construct or rehabilitate approximately 1500 units of low-rent housing. These units are listed on the attached Exhibit 18, and are the primary relocation resources for individuals displaced from the YBC project area. Approximately 1446 of these units have been completed and occupied; and approximately 82 others are planned.

In addition to these units, approximately 213 other low-income units have recently been constructed in the City through HUD Public Housing or Section 236 programs. (Refer to Exhibit 18.)

¹¹⁰ Refer to Section III, C. "Project Area Composition, Prior to Redevelopment."

¹¹¹ Refer to Section III, G. of this Statement for a further explanation of this litigation.

EXHIBIT 17

Characteristics of Current YBC Displacees

Principle Source of Income:

	<u>Individuals</u>	<u>%</u>	<u>Families</u>	<u>%*</u>
Wages	75	15.0	7	26.9
Savings, Investment, etc.	10	2.0		
Private pension	10	2.0		
Social Security	102	20.5	2	7.7
Veteran's Administration	45	9.0		
Workmen's Compensation	4	0.8		
Unemployment Benefits	19	3.8		
General Assistance	76	15.2	5	19.2
Old Age Assistance	22	4.4		
Aid to the Disabled	102	20.5	4	15.4
Aid to Families with Dependent Children			8	30.8
None	15	3.0		
Unknown	19	3.8		
TOTAL	499	100.0	26	100.0

Age:

Unknown	7	1.4		
20-24	7	1.4		
25-29	23	4.6	3	11.5
30-34	17	3.4	3	11.5
35-39	29	5.8	2	7.7
40-44	44	8.8	2	7.7
45-49	55	11.1	6	23.2
50-54	46	9.2	2	7.7
55-59	59	11.8	2	7.7
60-64	71	14.2	3	11.5
65-69	50	10.1	3	11.5
70-74	38	7.6		
75-79	23	4.6		
80 over	30	6.0		
TOTAL	499	100.0	26	100.0

Sex:

Male	470	94.2	22	84.6
Female	29	5.8	4	15.4
TOTAL	499	100.0	26	100.0

*Head of Household

SOURCE: San Francisco Redevelopment Agency, YBC site Office, 11/14/73

EXHIBIT 18
Low Income Housing Units
(Developed in Response to "Consent Order" of Nov. '70)

Resource	Program	Total Units	Types of Units			# Low Income*
			0	1	2	
A. <u>Completed</u>						
1. Alexis Apts. Fifth & Clementina Sts	236	206	158	48		82(fed) 124(local)
2. Vincentia Villa 1825 Mission	236	124	124			50(fed) 74(local)
3. Cal. 1-37 31st & Geary	Public Hsg.	74	62	12		74
4. Crescent Manor (Senate Hotel-Rehab) 467 Turk	221(d)(3)	92	92			92(fed)
5. Western Park Apts** 1280 Laguna	236	11	11			11(fed)
6. Salvation Army Harbor Lights-1275 Harrison	Private	65	65			65(priv)
7. Salvation Army China- town Center	Private	17	17			17(priv)
8. Salvation Army Apts. Fifth & Clara Sts.	236	258	196	62		103(fed) 155(local)
9. The Alexander (Olympic Hotel-rehab) 230 Eddy	221(d)(3)	178	132	46		178(fed)
10. El Bethel Arms Apts.** 1320 Golden Gate Ave.	236	22	22			22(fed)
11. Maria Manor (Ramona Hotel-Rehab) 174 Ellis	221(d)(3)	118	118			118(fed)

12. Marleton Manor (Roosevelt Hotel-Rehab) 240 Jones	221(d)(3)	150	140	10	150(fed)
13. Antonia Manor (Governor Hotel-Rehab) 180 Turk	221(d)(3)	131	131		131(fed)
Sub-Total					<u>1446</u>

C. Planned

14. Notre Dame Hospital (Rehab.) Van Ness & Broadway	236	206	161	45	82(fed)
Sub-Total					<u>82</u>

TOTAL Low-Income Units Under "Consent Order"	1528
----------------------------------------------	------

Other Available Low-Income Units

15. Royal Adah Arms Apts. Turk & Fillmore	236	142	12	130	47(fed)
16. Cal. 1-19 (2) 1750 McAllister	Public Housing	97	76	21	97
17. Cal. 1-29 Arguello Blvd.	Public Housing	69	59	9	1
Sub-Total					<u>69</u> <u>213</u>

TOTAL Low-Income Units	1741
------------------------	------

* Low income units include those constructed under the Public Housing programs and those receiving federal or local rent supplement.

**The asterisked projects were planned prior to November 1970, but expanded as a result of the Consent Order. Therefore, only a small number of the total units are counted as meeting the requirements of the Consent Order.

Plan Change II and the TOOR settlement provide for four additional low-income housing projects on three sites within the Project area and on one site immediately adjacent to the Project boundaries.¹¹² Although the unit composition, rent schedules and construction dates have not yet been developed for these projects, it is estimated that approximately 400 studio and one-bedroom units will be constructed in the Project area and approximately 100 units adjacent to the area.

Low and moderate income family units will be available primarily in the Western Addition area where six Section 236 housing projects (approximately 1200 family units) are under construction or planned. Although first priority for these units is to go to residents or displacees of the Western Addition area, the number of units is adequate to also accommodate the remaining 26 families in YBC.

All of the elderly and family units will be made available to tenants at not more than 25% of their incomes. The difference between the tenants' abilities to pay and the actual unit costs will be financed by the Housing Authority's Annual Contributions Contract and operating subsidy provided by HUD in the case of public housing federal rent supplement payments in the case of Section 221(d)(3) program; and by federal interest reduction subsidies and either federal or local rent supplements in the case of the Section 236 program.

Federal rent supplement payments are allocated to subsidize low-income units for a period of forty years; the City of San Francisco's Rent Supplement Program provides payments for up to ten years with an option for extension on a case-by-case basis. Additionally, local or federal relocation assistance payments will be provided to those YBC residents who qualify to support moving expenses and to support increased rent costs for a period of four years for those who do not move into public or subsidized housing projects (refer to Appendix L).

112 Refer to Section III, E, 2 of this Statement, "Plan Change II" for a further description of these proposed sites.

Through these programs, adequate rehousing resources in the numbers, unit sizes, and within the displacees' abilities to pay are available to all YBC residents. The locational preferences can be accommodated for 82% of the individuals and 47% of the families. Those desiring housing out of the City, or in North Beach or in Outer Mission¹¹³ will either have to relinquish their preferences and relocate in one of the above described units, or be dependent upon the vacancy rates of the normal housing stocks in those areas.

d. Social Resources

Surveys of the South of Market, North of Market, Western Addition and Mission rehousing areas were conducted by HUD in September 1972 and January 1973 to review the adequacy and comparability of social amenities and services in these areas. The latter three areas appeared to provide the services and facilities required for the unique YBC population and appeared comparable to those available to the YBC residents prior to redevelopment:

- (1) Commercial establishments - such as grocery stores, drug stores, barber shops, clothing stores, laundromats, general merchandising stores, liquor stores, eating facilities and banks - are generally within a three block radius of each housing site. The cost of goods and services are generally comparable to those in and around the YBC project area;
- (2) Twenty-four hour public transportation service is available at stops located within a two block radius of the housing sites;
- (3) Public utilities and services such as gas, water, electricity, phone, sanitation, police and fire are adequately available to the dwelling units in the identified housing resources;
- (4) Public agencies such as the Department of Social Services, Department of Human Resource Development, and Department of Public Health, which provide frequent assistance to a majority of the relocatees, have offices within walking distance of the rehousing resources or readily accessible by public transportation. The rehousing, in many cases, will

¹¹³ Sufficient elderly units were constructed in the Outer Mission area, but were occupied at a time when the Agency could not contact YBC residents due to the pending TOOR litigation.

be closer than units in the project area to welfare offices, Social Security offices, unemployment assistance offices, the San Francisco General Hospital, and other health facilities including emergency hospitals;

- (5) Religious institutions as well as recreational facilities and activities are available to the residents of these areas. In most instances these amenities are within walking distance or easily accessible by public transportation. The housing projects themselves are planned to contain community rooms and some to have programmed recreational activities;
- (6) Many of the elderly housing projects are required to provide a food service program at cost to residents if an interest in such a program is expressed by the tenants;
- (7) There are no unusual topographical or environmental features - such as hills, inclement weather or flooding - which would make the areas difficult for elderly residents.

As a result of the relocation and demolition in the YBC project area, many of the commercial establishments and facilities which once served the South of Market area residents are no longer available. However, a number of facilities still remain, and certain new services are being provided through the new housing projects and other sources. A HUD survey conducted in September 1973 and updated in June 1974, indicated the following services easily available to South of Market residents:

Health Services

Canon Kip/South of Market clinic

Department of Public Health Center/Fourth Street

Harriet Street Center/245 Harriet Street

Religious Services

St. Patrick's Church/Catholic

Representative Residents' Groups

Council No. 5 of the Economic Opportunity Council
Tenants & Owners in Opposition to Redevelopment (TOOR)

Education Services

Filipino Education Center/390 Fourth Street

Special Programs

St. Patrick's/meals and lodging programs

Salvation Army/Silver Crest Senior Citizens Residence and Club/extensive recreational, educational, health and social programs (to be expanded and provided to all residents of the area)

Legal Services

SF Neighborhood Legal Assistance Foundation/432 Natoma/OEO

Public Advocates/433 Turk Street

Transportation

Bus lines that serve South of Market/15, 25, 26, 27, 30, 42

Housing Projects

food services
laundry facilities
community centers and courtyards

The main deficiencies in the area surrounding the YBC Project appear to be the lack of commercial restaurants and grocery stores. In addition, some of the services listed above are located within the Project area and scheduled for eventual relocation; thus, their future availability is uncertain. However, TODCO, the consultant for the proposed low-income housing projects in the area, is in the process of conducting extensive use and needs analyses in preparation for the construction of the new units in the South of Market area. Preliminary plans call for the replacement of commercial, as well as other necessary, local services.

e. Social Impact

The impact upon the remaining area residents is likely to be mixed. Involuntary relocation tends to be a disruptive process for any person, but is particularly acute for elderly single individuals who often have greater difficulty adjusting to new surroundings and companions. To the extent that individuals are separated from their friends and those that they are accustomed to dealing with - such as landlords, entrepreneurs and welfare or social workers - they are likely to experience personal difficulty in the new surroundings.

These negative aspects will be mitigated somewhat in that many of the individuals will experience the positive effect of moving from substandard to recently constructed or rehabilitated standard housing, often at reduced cost to the tenant. In most instances, important services such as dining, community and laundry facilities will be located on the premises, with other needed services nearby.

2. Relocation of Business Firms

The characteristics of the remaining businesses in YBC are shown on Exhibit 19.

In any city, the availability of commercial space is subject to a variety of market conditions. Unlike housing which, when constructed with public monies, can be developed and reserved to meet an indentified need, there are few similar programs for the development of commercial facilities. It is, therefore, difficult to identify or earmark a reservoir of resources for the use of displaced businesses. Thus, the past record of business relocation and the projections of the business relocation supervisor for YBC, are used here to gauge future relocations.

Applying the percentage of past business relocation performance to the remaining workload in YBC, future displacement can be projected as follows: (refer to Appendix L2).

Type of Business	Total	Relocate Within City	Relocate Outside City	Discontinue Operation
Manufacturing	7	4	1	2
Non-profit Organization	4	3	-	1
Business or Personal Services	34	11	10	13
Wholesale/Retail	56	34	13	9
Mom & Pop Stores	15	1	-	14
Professionals	14	12	2	-
	<u>130(100%)</u>	<u>65(50%)</u>	<u>26(20%)</u>	<u>39(30%)</u>

The projections of the YBC Relocation Supervisor vary from these predictions based upon his contacts with the YBC firms:

Manufacturing	7	4	3	-
Non-profit Organization	4	4	-	-
Business or Personal Services	34	27	4	3
Wholesale/Retail	56	34	10	12
Mom & Pop Stores	15	3	-	12
Professionals	14	13	-	1
	<u>130(100%)</u>	<u>85(65%)</u>	<u>17(13%)</u>	<u>28(22%)</u>

Of these 130 businesses, five or approximately 3.8% are minority-owned, involving two Orientals, one Spanish-speaking, one Black, and one Moroccan. All of these businesses fall in the categories of small retail establishments or "Mom and Pop" stores.

EXHIBIT 19

YBC Business Firms

Type and Number	Average Sq. Ft.	Average No. of Employees	Areas of Preference
<u>MANUFACTURING (7)</u>			
Light	5,500	7	South of Market (4)
Heavy	10,000	27	Out of City (3)
Garment	3,000	5	
<u>NON-PROFIT ORGANIZATIONS (4)</u>			
	3,500	11	South of Market (4)
<u>BUSINESSES & PERSONAL SERVICES (34)</u>			
Repair Shops	1,500	4	Financial District/ Market Street (34)
Order Houses	600	2	
Hotel/Rental Units	11,000	5	
Rest./Bars	1,600	5	
Parking Lots	14,000	2	
Gas Stations	3,000	3	
Financial Institutions	4,100	1	
Other	900	3	
<u>WHOLESALE/RETAIL (56)</u>			
	3,200	7	Within City Limits (34) Out of City (10) May discontinue opera.(12)
<u>MOM & POP STORES (15)</u>			
Grocery	900	2	South of Market (2)
Barber	300	2	Mission District (1)
Laundry	800	3	Polk Street (1)
Cafe	600	2	Union Street (1)
Other	600	2	
<u>PROFESSIONALS (14)</u>			
Accountants	300	3	Financial District/ Market Street (14)
Attorneys	1,500	3	
Engineers	600	2	
Architects	1,000	3	
<hr/>			
TOTAL	(130) 68,500	104	

Past Relocation statistics further indicate that of those who have discontinued their businesses (33% of the workload) all have done so for one or a combination of the following three reasons: (refer to Appendix L2).

- (1) Economic restraints, e.g., higher rent fees for the replacement site or limited working capital to reestablish business (58%);
- (2) Loss of existing patronage (22%); and/or
- (3) Retirement or death (20%)

Of the businesses that continued operations approximately 75%, or 67 businesses, maintained previous staff levels; 16%, or 14 businesses, hired additional staff after relocation; and approximately 9%, or 8 businesses, lost personnel.

Based upon the past performance and the assessments of the Relocation Supervisor, the following estimated range of projections can be made for the remaining businesses in the area.¹¹⁴

- (1) It appears that 22% to 30% of the remaining businesses (29 to 39) will discontinue operations; of these, approximately 80% (23 to 31) will do so involuntarily (i.e., due to economic restraints or loss of patronage);
- (2) Of those firms continuing operations (91 to 101):
 - 75% will maintain current staff levels (68 to 76 firms);
 - 16% will hire additional staff (15 to 16 firms); and
 - 9% will experience a loss of personnel (8 to 9 firms)

Relocation can then be assumed to have a positive impact on those firms experiencing an increase in staff (approximately 12% of the total), and a neutral or negative impact for the remaining firms. The most negative effect is likely to be upon those firms which must involuntarily discontinue operations or experience a loss in staff (28-37%).

Federal relocation benefits are available to eligible business firms to provide compensation for the economic impact of displacement. These cover moving expenses, property losses, and expenses in searching for a replacement location, or, alternatively, can be in the form of a fixed payment for those firms discontinuing operations (refer to Appendix L1). These payments, in conjunction with the services provided by the Agency's relocation staff, serve to substantially mitigate the impact upon displaced businesses.

¹¹⁴ The projections are very rough in that future economic trends are likely to somewhat alter the pattern of past performance.

E. Traffic, Noise and Air Quality

1. Traffic and Transportation

a. Project Location and its Relationship to Traffic Corridors and Transportation Facilities

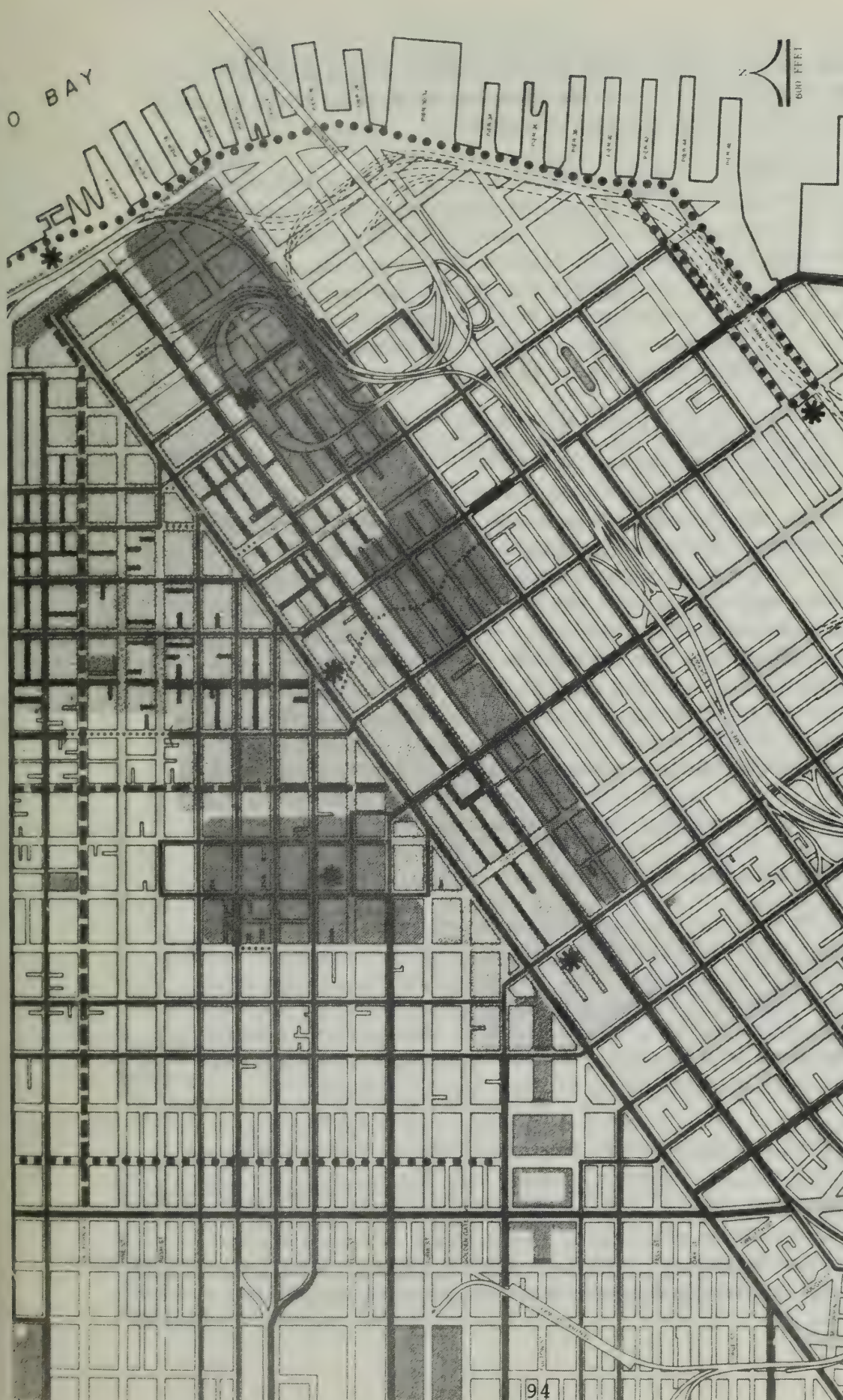
The Yerba Buena Center is located in downtown San Francisco adjacent to the financial and retail center of the City. The Project is in a focal location in terms of traffic corridors and transport facilities.

The recently constructed Powell Street Bay Area Rapid Transit (BART) Station opens immediately into the Project area and will be connected to the Central Blocks area by a major pedestrian concourse. The Montgomery Street BART Station is two blocks northeast of the project. This rapid transit system links the East Bay, San Francisco, and Daly City.

The Southern Pacific Railroad depot is three blocks south of the Project area at Third and Townsend Streets, and services persons from the Peninsula, as far south as San Jose. The Trans-Bay Bus Terminal is located two blocks east of the Project area at First and Mission Streets. Major users of this terminal include the AC Transit, Greyhound Bus, Continental Trailways, the Gray Line, Amtrak and Golden Gate Transit systems. All municipal streetcar lines and the Geary and Mission Street buses also stop at this terminal.

The downtown airlines bus terminal is approximately four blocks north of the Project area; the Seventh Street Greyhound depot is approximately three blocks to the west; and the Ferry Building, servicing the Sausalito and Tiburon Ferries, is approximately seven blocks east, at the end of Market Street. Excellent transfer lines are available from all of these locations, directly to the Project area.

Market Street, previously a major automobile thoroughfare, is currently being transformed into a major pedestrian and mass transit corridor. Following construction of the BART corridor, the City is proceeding to underground the streetcar lines, all of which begin and end their routes down Market Street. Muni bus routes service the Project area primarily along Market,



TRANSPORTATION PLAN FOR DOWNTOWN AND VICINITY

DOWNTOWN CORE
Automobile Control Area

PARKING: BELT.

PARK

PRIMARY VEHICULAR STREET

TRANSIT ARTERIAL STREET

PEDERIAN TRANSIT
SERVICE STREET

METROPOLITAN TRANSIT TERMINAL.

Existing

Proposed

SPECIAL TRANSIT SYSTEMS

Cable Car Route

Special Vehicle System

Special Shuttle System

Source: Transportation Element of the San Francisco Comprehensive Plan

Mission, Howard, Third and Fourth Streets, and a privately-owned system of jitney buses provide inexpensive service along Mission Street between Daly City and downtown.

Despite the excellent public transportation systems servicing the area, the Project area is also subject to intensive automobile traffic. It is located between the James Lick Bayshore Freeway and the downtown core area. Major freeway entrance and exit ramps heading both east across the Bay Bridge and south down the Peninsula are located in the block immediately southeast of the Project boundaries. Exit and entrance ramps to Highway 280 are located approximately three blocks to the southeast.

Major one-way streets pass through the Project area carrying traffic along east-west and north-south corridors to and from the downtown core area.

In addition, the Project area has long been a major source of low-cost transient and all-day parking facilities, increasing its magnetic draw for the private automobile. Prior to redevelopment, there were approximately 3,200 parking spaces in the area. Following demolition and clearance activities, numerous temporary surface parking lots were established in the area, raising the total number of off-street parking spaces to approximately 4,600 with approximately 500 on-street spaces. The currently proposed project would replace most of these spaces to arrive at a total of approximately 4,100 new parking spaces.

b. Potential Demand of the Proposed Project

(1) Projected Modal Split

The most comprehensive statistics reflecting transportation modes and destinations of persons exiting the South of Market area were gathered in 1965 by the Bay Area Transportation Commission.¹¹⁵ These statistics and modal splits have served as the basis for most major Bay Area transportation studies conducted in the ensuing years. The South of Market peak period¹¹⁶ modal split at that time was as follows:

115 Bay Area Transportation Study, Bay Area Transportation Commission May 1969

116 The peak period is defined as that two-hour period during with the largest amount of travel occurs. Generally it is from 4-6 p.m. in downtown San Francisco. Although slightly lighter, a peak period also occurs during the normal morning hours, generally between 7-9 a.m.

TABLE I
South of Market - Peak Period Person Trips, 1965

<u>Destination</u>	<u>Mode of Travel</u>		<u>% of</u> <u>Total</u> <u>Trips</u>
	<u>Transit</u>	<u>Auto</u> ¹¹⁷	
San Francisco	53%	47%	50%
East Bay	42%	58%	23%
Peninsula	46%	54%	21%
North Bay	<u>18%</u>	<u>82%</u>	<u>6%</u>
TOTALS	47%	53%	100%

Although no subsequent studies have combined the elements of mode, purpose, period and destination for South of Market traffic, there have been a series of studies and surveys which indicate that the 1965 modal split has changed substantially over the past decade. Significant changes include the following:

- Employment trends: The total population in San Francisco has declined since 1960 and is expected to remain stable over the next decade and increase slightly between 1980 and 1990. ¹¹⁸

Concurrently, San Francisco's economic base has been changing rapidly from manufacturing to services, creating an increase in residents commuting out of the City in search of blue-color jobs. Consequently, the percentage of San Francisco residents working in the City has been declining, while the percentage of non-resident commuters has been increasing. ¹¹⁹ The increase in San Francisco employment between 1965 and 1990 is expected to be composed of 26% San Francisco residents and 74% non-residents, as follows:

¹¹⁷ Includes trucks, taxis and private or rental cars.

¹¹⁸ Population Projections for San Francisco 1960-1990, Department of City Planning, April 1968.

¹¹⁹ Transportation Conditions, Problems & Issues, Background Studies for the Comprehensive Plan, Department of City Planning, January 1971, pp. xi-xii.

Table II
Projected Employment 120
San Francisco

	<u>1965.</u>	<u>1990</u>	<u>Amt. Growth</u>	<u>% of Total Growth</u>
Total	476,400	714,000	237,600	100%
Resident	290,750	352,350	61,600	26%
Non-res.	185,650	361,650	176,000	74%

These percentages will be used in the modal split for projecting YBC generated traffic ¹²¹ as more representative of future trends than the 1965 50/50 split between residents and non-residents.

Of the non-residents, it is likely that the relative proportion of East Bay commuters will increase in relationship to the other two suburban corridors, if improved transportation facilities are not provided for the North Bay and the Peninsula. However, it is difficult to project what that proportional change might be; thus, the 1965 non-resident modal split is retained in this regard.

- East Bay and BART: Statistics gathered by the State Department of Bay Toll Crossings in 1973 indicate that the modal split in peak hour trips from the East Bay to all destinations within the City of San Francisco has shifted in favor of transit to a split of approximately 51% transit and 49% vehicle. Although these trips are not broken out by specific destinations, a survey of transit passengers conducted

120 Op. cit., Transportation Conditions, pp. 37, 38 and 65; based upon BATS computer tabulations.

121 It is difficult to project what portion of the growth in San Francisco employment is likely to be in the downtown area. Due to the minimal number of blue-color jobs available, the increase in the downtown area could be less than 26%. These projections reflect a higher percentage of resident employment than the Wells Fargo Study projection of 18% and a lower percentage than the 1972 Census data report of 50%.

for the Transbay Terminal Study indicates that 88% of all transit destinations in San Francisco are within the central business district (CBD),¹²² while only 34% of all East Bay automobile trip destinations are within the CBD.¹²³ Thus, the modal split for peak hour traffic destination for the CBD is expected to be substantially higher than the city-wide 51% transit split. (If applied directly, these figures would indicate a 73% transit/27% auto modal split in peak hour traffic destined for the CBD.)

The availability of BART service from the East Bay, combined with the limited capacity of the Bay Bridge, is expected to further increase the percentage of transit travel to and from that area. The Bay Bridge capacity is approximately 12,600 person trips or 9,000 vehicles per hour. The current loading is approximately 12,200 person trips or 8,700 vehicles per peak hour.¹²⁴ Thus the bridge is near its peak hour capacity.

The combination of these factors supports the projection of the City Planning Department that the modal split will shift to at least 70% transit and 30% auto by 1975 for peak hour commuters between San Francisco's CBD and the East Bay.¹²⁵

- North Bay: Statistics from the State Department of Bay Toll Crossings indicate a shift in the North Bay peak hour modal split to approximately 34% transit and 66% vehicle in 1973. Golden Gate Transit increased its ridership by approximately 57% between the time of the BATS report and the 1973 State study, due primarily to two factors: improved service and limited capacity of the Golden Gate Bridge.

122 Transbay Transit Terminal Transportation Study, Summary Report, prepared by Barton-Aschman Associates, Inc., 1974.

123 Southern Crossing Summary Report, prepared by Wiebiar Smith & Associates for the Division of Bay Toll Crossings, January 14, 1971.

124 Op. cit., Transbay Terminal Study

125 Op. cit., Transportation Conditions p. 84, The Transbay Terminal Study projects a peak period split for all destinations of 27% auto and 73% transit by 1995.

Current peak hour person vehicle trips across the Golden Gate Bridge are approximately 8,700, with approximately 1.4 persons per vehicle, or a total of approximately 6,200 vehicles. Thus, the bridge is filled to near its peak hour capacity of 6,400 automobiles.¹²⁶ Thus, any significant increase in North Bay commuters will have to be accommodated by the transit systems.

During the peak hour more than 90% of all Golden Gate Transit trips end in the financial district of San Francisco. However, figures are not available for the destination of peak hour automobiles; thus it is not possible to amend the city-wide modal split to reflect CBD travel exclusively. Therefore, the overall split of 34% transit/66% vehicle is retained, although the actual split is likely to be slightly higher in favor of transit for those destined for the CBD.

- Peninsula: The 1973 State Department of Bay Toll Crossing statistics indicate a peak hour modal split from the Peninsula of approximately 21% transit/79% vehicles. The corridors from this area can accommodate approximately 27,000 vehicles per hour or 35,000 person vehicle trips at the current rate of 1.3 persons per vehicle. The current peak hour loading of these corridors is 28,900 person trips, or approximately 22,200 vehicles. Thus, unlike the other major corridors, there is room for expanded vehicular traffic.

Statistics are not available to indicate the destination of Peninsula peak hour transit and vehicular traffic. Thus, although the 1973 city-wide peak hour split of 21%/79% varies substantially from the 1965 BATS downtown split of 46%/54%, the former is retained since it is more current, though likely to be conservative for CBD-destined commuters.

¹²⁶ Transbay Terminal Study, p.26. Statistics from the Golden Gate Bridge, Highway and Transportation District, Monthly Statistical Summary, Passenger and Traffic Volumes, Vol. 4, Nos. 3 and 4, indicate that total vehicular patronage decreased slightly in late 1973 and early 1974; however it began rising again in April 1974. It is expected that the fluctuation was due in large part to the difficulty in obtaining gasoline during those months. Similarly, bus patronage was up from approximately 540,000 in March 1973 to 710,000 in March 1974.

The revised modal split to be applied to YBC - generated peak hour traffic is as follows:

TABLE III
Peak Period Trips - Modal Split

<u>Destination</u>	<u>% of Total Peak Period Trips</u>	<u>% Transportation Mode</u>		
		<u>Vehicle</u>	<u>Auto</u>	<u>Total</u>
San Francisco	26%	53%*	47%	100%
East Bay	34%	70%	30%	100%
Peninsula	32%	21%	79%	100%
North Bay	8%	34%	66%	100%

- * The 1965 modal split for San Francisco residents is likely to be adjusted in favor of transit travel in future years, as a result of the commencement of BART service and the speedier, more efficient service provided by the undergrounded streetcars. However, there is not sufficient data for projecting that split at this time, thus, the 1965 split is used here.

Non-peak hour traffic patterns are not specifically available for the South of Market area. However, for the total downtown area, non-peak hour movements in 1965 constituted approximately 52% of the total unidirectional movements on an average weekday. Stated differently, there were 170,900 peak hour trips and 184,442 non-peak hour trips. Since the non-peak hour trips are dispersed over a far greater time period, the impact of this travel is merely a fraction of that attributable to peak hour traffic. Although an increase in non-work travel is anticipated, as a result of increasing incomes and leisure time, the concentration of such traffic is not likely to approach that of peak period travel. Therefore, primary attention in the following sections is directed toward the peak period traffic, since this represents worst case conditions and the greatest impact upon street and transit capacities.

(2) Projected Project Demand

The potential demand of the project is discussed here in terms of the adjusted modal split, and the traffic pattern which would occur if there were no limitations upon such patterns. The following section discusses the capacity of existing systems - streets, parking, transit - to indicate the extent to which this natural pattern can be accommodated, and the extent to which it will be altered.

Increased peak hour commute traffic will result primarily from the increased employment in the area. It is projected that total employment in the area will be approximately 35,528 persons in 1983. ¹²⁷ The BATS modal split indicates that 77% of all work trips exit the downtown area during the afternoon peak period. Thus, it is estimated that YBC employment will generate 27,359 peak period person movements. ¹²⁸ Table IV presents the projected YBC employment in accordance with the revised modal split and projects that 14,495 of these persons would exit the Project area by automobile during the afternoon peak period, if no limits on vehicular traffic existed.

TABLE IV
Projected YBC Peak Period Work Trips

<u>Destination</u>	# of Peak Period Work Trips*	<u># by Transportation Mode</u>	
		<u>Transit</u>	<u>Auto</u>
San Francisco	7,113	3,770	3,343
East Bay	9,302	6,511	2,791
Peninsula	8,755	1,839	6,916
North Bay	<u>2,189</u>	<u>744</u>	<u>1,445</u>
TOTALS	27,359	12,864	14,495

* Approximately 8,171 work trips are projected to exit the downtown area during off-peak hours.

Other traffic generators in the Project area will be the Exhibit Hall, the Hotel, the Sports Arena, the Theater, the Apparel Mart and the retail stores. The Exhibit Hall is estimated to generate an average of 10,500 delegates per convention, and could accommodate a maximum of 50,000 delegates. The experience of past conventions indicates that approximately 35% of the delegates rely upon automobiles or taxis, while the remainder use mass transit or walk. Approximately two-thirds of the conven-

¹²⁷ Refer to Section IV, F., of this Statement, "Economics and Financing" for a breakdown of the employment figures.

¹²⁸ This does not include a factor for potential absenteeism, which could be expected to reduce peak period person movements slightly.

tion center visitors exit the hall during the afternoon peak period. It is estimated that the average person movements generated by the convention complex will be as follows: 129

TABLE V
Projected YBC Delegate Trips - Peak Period

<u>Destination</u>	<u>Walk or Transit</u>		<u>Autos</u>		<u>Totals</u>	
	<u>#</u>	<u>%</u>	<u>#</u>	<u>%</u>	<u>#</u>	<u>%</u>
San Francisco	4,536	81%	1,964	19%	5,600	100%
Peninsula	--	--	700	100%	700	100%
East Bay	--	--	700	100%	700	100%
TOTALS	4,536		2,464		7,000**	

* Includes taxi

** Approximately one-third, or 3,500 are projected to exit the area during off-peak hours.

At any time that the convention center is being used to its maximum capacity, the modal split indicates that as many as 11,736 convention visitors would exit the Project area by automobile during the peak period.

Other Convention Center traffic will be generated by public shows and exhibits which attract Bay Area residents. These trips are likely to be dispersed over a considerable period of time, and not likely to fall during the peak hour periods. Most shows and special exhibits are likely to occur during the evenings and on weekends when they can attract the public. It is estimated that the maximum number of persons existing such events at one time would be 10,000. The vast majority (close to 79%) of these persons are expected to travel by automobile.¹³⁰

129 Op. cit., Arthur D. Little & URS Research Co., pp. V-G-14 and V-G-16. The modal split is based upon statistics from the SF Visitors and Convention Bureau and is applied here to the adjusted estimate of average delegates attendance. (Refer to Section IV., F of this Statement for a discussion of projected convention business). With the advent of transbay BART service, it is expected that some convention delegates will now rely upon transit instead of the automobile in travel to the East Bay. However, since there is no record upon which to base such a projection, the conservative split of 100% automobile traffic is retained.

130 Op. cit., Arthur D. Little & URS Research Co., p. V-G-13 and V-G-20. Based upon BATS estimates of non-work trips.

The hotel is expected to accommodate a maximum of 980 guests, most of whom will be travelling short distances within the City, with their movements dispersed over a large period of time. Hotel guests are unlikely to contribute significantly to peak period traffic. A maximum of 70 guests are estimated to exit the Project area by automobile during the peak period; approximately 126 others will exit at this time by transit or on foot. ¹³¹

The Sports Arena and Theater are likely to generate surge crowds in the evenings and on weekends, at the beginning and conclusion of major events. The average person movements for these events are as follows:

TABLE VI
Night Event - Surge Traffic

	<u>Mass Transp.</u>	<u>Auto</u>	<u>Ave. Attendance</u>
Sports Arena	1,690	4,560	6,250
Theater	388	1,052	1,440
TOTALS	2,078	5,612	7,690

At times when these facilities are operating at full capacity, the surge of persons exits by vehicles could be as high as 14,235 for the Sports Arena and 1,752 for the Theater. ¹³²

The Apparel Mart and retail shops in the area are expected to generate vehicular traffic during the off-peak daytime hours. However, a large percentage of visitors to these facilities will travel by automobile rather than transit. ¹³³ The Depart-

¹³¹ Ibid., pp. V-G-14 and V-G-16. Modal distribution "C" is applied to a revised estimate of maximum hotel occupancy of 980.

¹³² Op. cit., Arthur D. Little & URS Research Co., pp. V-G-14, V-G-16; modal splits based upon BATS non-work estimates; adjusted to reflect revised average attendance at Sports Arena. Maximum attendance at the Sports Arena is 19,500 and, for the Theater, 2,400.

¹³³ Op. cit., Transportation Conditions, p. 70, Table 7. Approximately 66% of all non-work trips to the downtown area are by automobile.

ment of Public Works has estimated that department stores generate 2.54 vehicular trips per day for every 1,000 square foot of gross floor space. ¹³⁴ Applying this figure to the Apparel Mart and retail shops, it can be estimated that as many as 3,630 vehicle trips per day could be generated by these facilities. Subtracting vehicle trips by employees, covered in Table IV above, the average visitor vehicle trip is estimated at 3,130 per day during the off-peak daytime hours.

Summary of Vehicles Generated by Project Activities

TABLE VII
YBC - Generated Afternoon Peak Period Vehicles

	Person Movements by Vehicle		# of Vehicles*	
	Ave.	Max.	Ave.	Max.
Employment	14,495	14,495	10,354	10,354
Convention				
Hall	2,464	11,739	1,760	8,385
Hotel	55**	70	39	50
TOTALS	17,014	26,304	12,153	18,789

* Based upon 1.4 persons per vehicle. Source: DPATS, Part I, Downtown Parking, p. 15.

** Based upon 80% occupancy.

TABLE VIII
YBC - Generated Nighttime Peak Period Vehicles

	Person Movements by Vehicle		# of Vehicles	
	Ave.	Max.	Ave.	Max.
Public Exh.	2,920	7,300	2,085	5,214
Sports				
Arena	4,560	14,235	3,257	10,168
Theater	1,052	1,752	751	1,251
TOTALS	8,532	23,287	6,093	16,632

¹³⁴ San Francisco Downtown Parking and Traffic Survey, (DPATS), Part I, Downtown Parking, prepared by the Department of Public Works, December 1970, p. 5.

The total off-peak person movements are likely to average 21,291, with a maximum of 46,085. A large portion of these are expected to be by automobile (approximately 66%) and will be dispersed over several hours. The average number off off-peak vehicles is estimated at 10,037, while the maximum is estimated at 21,726. ¹³⁵

The maximum vehicles generated during off-peak hours (approximately 21,736) and during nighttime surge traffic (approximately 16,776) are significantly less than the 2-hour evening peak traffic recorded in 1965 (approximately 33,146). Since the off-peak traffic is dispersed over a longer time span, and the nighttime traffic will not be competing with other vehicles, these sources are not expected to tax the existing transport systems.

If allowed to occur as projected, the afternoon peak hour traffic generated by YBC would increase by more than 50% the South of Market peak period traffic recorded in 1965, and could be expected to have a major adverse impact upon traffic patterns and congestion in the area. However, as discussed in the following section, this potential peak period traffic increase is not likely to occur, but will rather be severely limited by the availability of parking facilities in the area.

Other Impacts

- Service Traffic

Access and loading zones for service and delivery vehicles have been provided underground for the Public Facilities, and, therefore, are not expected to interrupt the regular flow of traffic.

- Traffic During Construction

A short-term negative impact is expected during the construction period, when traffic will be interrupted by such activities as utility relocation and the flow of construction vehicles and workers. This impact will be mitigated by providing queuing space for vehicles within the site, using tunneling rather than open ditches for the relocation of utilities, and limiting major street work to off-peak hours.

¹³⁵ Based upon 1.4 persons per vehicle.

- Pedestrian Traffic

There will be a significant increase in pedestrian traffic both during the peak period working hours and during the nighttime peak period when persons are exiting from the various evening events. The total person movements from the Project area during the afternoon peak period are estimated at an average of 34,515 and a maximum of 39,294, while the average and maximum pedestrian traffic following nighttime activities are estimated at 11,690 and 31,900 respectively. ¹³⁶

These will be diverted to a large degree from conflicting with the vehicular traffic by the pedestrian overpasses and the concourse connection with the Powell Street BART station. However, a small degree of traffic conflict and pedestrian congestion comparable to that in the Financial District can be expected during these times.

Studies of pedestrian flows have been conducted by De Leuw Cather and Associates and by Lawrence Halprin Associates preliminary to final design of the Central Concourse. A specialist in pedestrian movements has been hired by the Project's managing architects, McCue Boone & Tomsick to provide additional design assistance. Thus, it is expected that pedestrian flows will be carefully managed in the completed project.

- Impacts of the Proposed Plan Changes

The three proposed housing sites are expected to house approximately 500 elderly residents. Based upon experience in other low-cost elderly housing projects, it is estimated that a maximum of 25% of these residents will own automobiles which they will use infrequently, and seldom use during peak hours. The total peak hour traffic would be substantially less from these units than from the originally proposed office buildings which would house approximately 750 employees, 77% of whom would be exiting the Project area during the afternoon peak period.

136 Assuming simultaneous use of the Theater, Sports Arena and Convention Center.

The proposed Hotel would also generate less total and peak hour traffic than the office building originally approved for that site, which would have housed approximately 2,750 employees.

c. Traffic and Transit Capacities

1. Parking Capacity

As discussed above, the limitation upon available parking facilities is expected to constitute the major constraint upon the potential increase in peak hour vehicular traffic generated by YBC.

Current Parking Capacity

The available parking facilities in the Project area have increased in recent months, and excess capacity currently exists. Recent surveys conducted by the Department of Public Works and the Redevelopment Agency indicate that the off-street lots are operating approximately 10% below their practical capacity.¹³⁷ Thus approximately 460 of the total 4,600 are unused.

Excess spaces also exist in other parking facilities in the South of Market area, within a threeblock radius of the Project area. The DPW survey indicates an excess of approximately 300 spaces. The parking facilities across Market Street to the north are currently filled to their practical capacity.

137 The "practical parking capacity" is somewhat less than the total number of spaces available, due to brief periods of vacancy during parking turnover. During daytime hours, 85% of the available spaces is considered to be the "practical parking capacity". During nighttime hours, it is slightly higher, at 90%. Source: DPATS, Part I. Downtown Parking, November 1966, p. 18, and Plate 30, p.39.

Planned Capacity

The proposed number of parking spaces in the YBC Project is as follows:

1800 spaces - public garage
600 spaces - private apparel mart garage
316 spaces - completed public garage extension, Fifth
 & Mission Streets
1203 spaces - parking in private developments
181 spaces - on-street
4100 138

The temporary low-cost parking spaces currently operating in the Project area will be removed, and the total number of available spaces will, thus, be reduced slightly. The persons who are now parking in the Project area are expected to fill the approximately 300 excess parking spaces in the surrounding area, and the remainder will be forced to compete for new facilities or relinquish their automobiles as a means of commuting to work.

In an effort to further reduce the number of persons using these new facilities for allday commuter uses, it is the policy of the City to charge high daily rates in the public parking garage.

Estimates prepared by DeLeuw & Cather ¹³⁹ project that 3,900 offstreet parking spaces ¹⁴⁰ in the area will produce 2,548 afternoon peak period movements. This limitation upon the parking capacity in the area would reduce by 16,241 the possible maximum peak hour vehicular movements as projected by the modal split, and would constitute a slight reduction from the approximately 2,810 vehicles currently exiting from existing spaces in the area.

138 Proposed action by the Agency is expected to further reduce this inventory as discussed later.

139 Yerba Buena Center Traffic Access and Capacity, DeLeuw, Cather & Company, Engineers, February 11, 1972.

140 The 181 on-street spaces are limited to short-term parking.

The demand for additional spaces in the South of Market area will be great, and the City's response to this demand will determine the ultimate traffic impact of the proposed Project.

If no additional spaces, other than those currently proposed, are permitted in the South of Market area, there is expected to be a slight reduction in peak period automobile traffic exiting the area. For every new facility that is permitted, a proportionate increase in vehicular traffic can be expected.

To date, City policy has been mixed in this regard. A stated policy of the City is that "... all additions to the commuter load as a result of job growth in the City should be accommodated by public transit. Consequently, the (Transportation) Plan does not recommend new facilities which would increase the number of cars entering the city. Automobiles cannot be the primary means of commuter travel." ¹⁴¹ However, the Transportation Plan also states that "...vehicles should be intercepted at parking facilities located around the core next to major thoroughfares so that uncongested movement and high internal accessibility may be provided within the core. These facilities would be designed as replacements for those on-street spaces pre-empted by service or pedestrian needs within the core." They also would be designated as short-term parking facilities. ¹⁴² Portions of the South of Market Area are designated for such parking facilities.

If additional parking facilities are permitted in the South of Market area, a negative environmental impact is expected to result.

To mitigate against this potential negative impact, a parking management statement has been prepared by the City's Chief Administrative Officer which calls for: 1) a further reduction of parking spaces within the project area (approximately 200); 2) the creation of a special district surrounding the project area which would prohibit the construction of parking

141 "Transportation Element" of The Comprehensive Plan, prepared by the Department of City Planning, approved by City Planning Commission April 27, 1972, p. 4.

142 Ibid., p. 24.

garages and would limit all private parking development, and 3) the development of additional transit programs and inducements. Elements of this proposal requiring action by the Redevelopment Agency have been approved by the Agency Members. Further, actions are now required of the City Planning Commission and the Board of Supervisors. Such actions are expected to assure that the peak period traffic volumes in the South of Market area will be strictly limited, and will not exceed current levels.

(2) Street Capacity

Although the Project area streets are not heavily taxed during non-peak hours, during peak hours the streets in South of Market are heavily traveled.¹⁴³ Traffic counts taken by the Department of Public Works indicate the following evening peak hour traffic flow through the project area. Flow counts are taken at their point of maximum volume within the project area:¹⁴⁴

TABLE IX
Project Area - Peak Period Traffic

<u>Street</u>	<u>Peak Period Vehicles/Hr.</u>	<u>Current Capacity</u> ¹⁴⁵	<u>Potential Capacity</u>
Third	1731	2700	3300
Fourth	1656	3300	3300
Mission	927	3000	3000
Howard	2410	2700	3300
Folsom	1936	2100	3300
Harrison	1087	2100	3300

143 Op. cit., DPATS, Part II, pp. 11 & 12. Comparison of off peak and peak vehicles per hour.

144 "City and County of San Francisco Evening Peak Hour Traffic Flow on Principal Streets and Highways, 1969-1973," prepared by the Department of Public Works, Division of Traffic Engineering, July 1973.

145 Street capacity is based upon 3 second intervals between vehicles, indicating that one lane can accommodate 1200 free-flowing automobiles per hour. This number is reduced by 50% to 600 automobiles per lane to compensate for traffic signals and other interruptions. The turn lane is further reduced by 50% to compensate for the delay caused by turning vehicles.

Each of the major streets through the project area has six lanes, with authorizing legislation for tow-away lanes on both sides of the street. In some instances these tow-away lanes have been put into effect (e.g. Third, Fourth and Mission); in other instances, only one lane has been put into effect (e.g. Howard); and in the third instance, no evening peak period tow-away zones have been put into effect (e.g. Folsom¹⁴⁶ and Harrison). Thus, although certain streets are currently functioning near capacity -- most specifically Folsom and Howard Streets -- the potential for expanded capacity during the peak period is readily available, if needed.

As described above, the corridors to the East and North Bays are currently filled to near capacity. The corridors to the Peninsula are heavily traveled, but some excess capacity exists.

(3) Transit Capacity¹⁴⁷

Since automobile traffic will be severely limited in the project area by the existing capacity of traffic corridors and by the availability of parking facilities, a large number of project users will be diverted to public transit (refer to preceding tables).¹⁴⁸

- YBC is estimated to generate nearly 10,000 peak period person trips destined for the East Bay (refer to Tables V and VII). If all persons were forced to use transit due to limited capacity on the Bay Bridge and limited available parking facilities they could be adequately accommodated as follows:

AC Transit - This service is currently operating 330 buses, carrying 13,600 passengers from the East Bay to San Francisco during the morning rush hour. It is estimated that approximately 70% of the current passengers will initially be absorbed by BART,

146 Folsom Street has tow-away lanes during the morning peak period of 7-9 AM.

147 Op. cit., Transbay Terminal Study.

148 It is expected that a certain number of commuters will find parking spaces away from the project area and take local transit to the downtown area. Refer to comments in Part II from the Transit Planning Unit of the PUC for a fuller discussion.

leaving substantial excess capacity. AC Transit transbay ridership is not expected to reach or exceed current levels until 1995 including projected demand from new projects such as YBC and City Center in Oakland.

BART - The transbay service, which became operational in September 1974, is projected to accommodate 21,000 persons seated -- or 31,700 persons, allowing a 50% increase for standees -- per hour at the currently projected rate of 2-minute headways. This capacity is projected to still be adequate in 1995, when the total demand, including YBC, is estimated to be 24,010 persons per peak hour.

- Approximately 9,000 additional commuters will be generated from the Peninsula during the peak period. If the large majority of these chose to use transit, current facilities would not be adequate to handle the load, although expansion is anticipated. Thus, a majority of these persons are expected to use their automobiles. The capacity of the Peninsula Corridor is adequate to handle the increase.

Southern Pacific Railroad and Western Greyhound -These services from the Peninsula are close to capacity during peak periods (23,000 persons). No definite plans have been developed to improve transit capacity to and from the peninsula; however, the Southern Pacific Feasibility Study is underway to provide needed improvements.

- Approximately 1,500 additional commuters will be generated from the North Bay during the peak period. Additional facilities will be needed to handle this load, if all were to be diverted to transit.

Golden Gate Transit - Seventy-five percent of the Golden Gate Transit buses are currently diverted during the morning peak hour to service the San Francisco financial district. In order to accommodate the additional YBC commuters, additional buses would have to be diverted, or the total fleet would have to be increased. The Golden Gate Corridor Project Study, currently underway, is being conducted to plan for such future needs.

- Approximately 7,000 San Francisco commuters would be generated by the completed project. Since the Muni is currently operating at or near capacity, these persons would be forced to find private means of transportation; however, improvements of the Muni system are planned, and a large number of commuters are expected to be accommodated by the BART system.

SF Municipal Railway - Although currently filled to capacity (475,000 passengers per weekday, with 416,100 traveling to and from the downtown area), a massive equipment replacement program is currently underway, which together with the undergrounding of the streetcar system, is expected to increase service efficiency and capacity. BART is also expected to absorb a portion of the Muni passengers.

d. Summary of Project Impacts

As long as the tight supply of parking facilities remains as a limiting factor upon peak hour commute traffic, the projected modal split for the area cannot be realized, and the Project is not expected to increase peak period vehicular traffic, nor jeopardize the existing street capacity. The recent steps initiated by the Chief Administrative Officer indicate the intention of the City to assure that parking in the area is strictly limited and that transit inducements and services are improved.

The BART and AC Transit systems are expected to be able to accommodate the increase in transit passengers from the East Bay. However, the San Francisco Muni, Golden Gate Transit and transit facilities from the Peninsula are currently at or near capacity even without the projected increase in passengers. However, plans for improvement and expansion, plus the advent of BART in San Francisco, are expected to ease the burden upon these systems.

Off-peak and nighttime vehicular traffic can be expected to increase substantially as a result of the proposed Project. However, the total street loadings during these periods will be significantly below that of the afternoon peak period, and will not threaten the existing street capacity.

Pedestrian traffic in the South of Market area will be heavily increased, particularly during the afternoon and nighttime peak periods. A small degree of pedestrian/vehicular conflict can be expected, and substantial pedestrian congestion is projected. This impact will be mitigated as the result of pedestrian studies which are being incorporated into the final design.

Construction activities during the early years of the Project can be expected to create traffic disruption and increase congestion. Planned mitigating measures are likely to keep this short-term negative impact to a minimum.

2. Noise

a. Parameters of Environmental Noise

Three of the principal dimensions in relating environmental noise exposure to subjective responses are as follows:

- the intensity of sound
- the frequency spectrum of the sound
- the time varying character of the sound

1. Sound Intensity

Sound intensity is normally measured in terms of decibels (noted dB). It depends upon the strength of pressure fluctuations around a static pressure. Because the range of sound intensity to which the human ear normally responds is so enormous, it is necessary to use a logarithmic measure, the decibel, to relate the sound intensity in question to a standard reference intensity. Other logarithmic scales commonly in use are f-stops on cameras and the Richter scale for earthquakes.

The decibel notation is somewhat tricky. Each time the intensity of the sound is doubled, there is an increase of 3 dB.

<u>Sound Intensity</u> (Picowatts)	<u>Sound Level</u> (dB)
1	0
2	3
4	6
8	9
16	12
etc.	

Each time the sound intensity is multiplied by 10, there is an increase of 10 dB.

1	0
10	10
100	20
1000	30
10000	40
etc.	

Each increase of 10 dB sounds approximately twice as loud to the ear. A risk of temporary or permanent damage to hearing exists when people are under prolonged exposure to noise levels above 90 dB. Because the decibel notation can be fairly complicated (particularly as to how two or more sound levels combine), Appendix M₁ may be used as a guide to the subjective impressions of sounds of different decibel levels.

2. Frequency

Frequency is the physical measure of repetitive pressure fluctuations and is analogous to the subjective aspect of pitch. Environmental noise is almost always "broad band" in nature, i.e., it is made up of many different pitches or frequencies. People will distinguish not only between the high and low frequency components in a composite noise, but they will find high frequency noises much more annoying than low frequency noises of the same level. This complication of how the ear responds to pitch can be avoided by the use of a special weighing network in the sound level meter. The "A"weighted sound level, expressed in decibels and abbreviated "dB (A)", simulated the response of the average human ear to sounds of different frequencies.

3. Time Varying Characteristics

The dominant characteristic of urban noise is that it will usually fluctuate over a wide range of levels within a short time period. It is too simplistic to say the noise level at a site is so many decibels. To adequately describe the noise environment it is necessary to use a statistical approach. This means the description of the whole time varying pattern of sound rather than some single level, such as the average value. The noise exposure at a site, for example, can be described as exceeding 50 dB(A) for 90 percent of the time, 60 dB(A) for 50 percent of the time and 75 dB (A) for 10 percent of the time. Such a description will show the median noise level as well as how much the noise fluctuates. Both the median level and the fluctuation are important to know, because a steady noise is more acceptable to people than a noise of the same median level that fluctuates erratically. In describing the noise environment, it is common practice to refer to three percentiles of measurement. These are the sound levels exceeded, respectively, 90%, 50%, and 10%

of the time are designated by the symbols L_{90} , L_{50} , and L_{10} . L_{90} levels are usually referred to as background noise, and L_{10} levels are usually considered as frequent maximum noises. The difference between the L_{10} and the L_{90} is called the noise climate.

b. Noise Impact Criteria and Interpretation

The idea of an acceptable noise level implies no adverse community response to an intruding noise. In relating impact criteria to human response, it is necessary to consider both the conservation of the existing environment and an environmental utility. The community in general will react if the existing noise levels are increased significantly. Irrespective of an increase in existing conditions, the utility of an area depends on the ability of a user to perform certain tasks. The compatibility of an environment thus is based on these two considerations.

1) HUD Criteria

The HUD noise policy and criteria were established to determine the acceptability of acoustic environments for federally assisted residential dwelling units.¹⁵⁰ There are several elements in the HUD criteria defining permissible durations of various sound levels over a 24 hour period. Normally, where vehicular traffic is the dominant noise source, the limiting criterion is that noise levels shall not exceed 65 dB(A) for more than 8 hours per 24 hour period. Other criteria are usually limiting only in areas near dominant industrial, railroad or airport noise sources.

2) DOT Criteria

The Department of Transportation has established a standard for community noise exposure in its Policy and Procedure Memorandum (PPM) 90-2, for different land use categories, as summarized in Exhibit 21. These criteria are based on A-weighted L_{10} sound levels for the appropriate measurement periods. In general this standard establishes a maximum L_{10} for developed properties of 75 dB(A). As of the date of this report, DOT and HUD have promulgated the only Federal standards relating to community noise exposure.

¹⁵⁰ Refer to Appendix M2 for an outline of HUD policy and criteria as contained in "Noise Abatement and Control - Departmental Policy. Implementation Responsibilities and Standards," Policy Circular No. 1390.2, U.S. Department of HUD, August 4, 1971.

CURRENT DOT NOISE CRITERIA

DESIGN NOISE LEVEL/LAND USE RELATIONSHIPS*

<u>Land Use Category</u>	<u>Design Noise Level - L₁₀</u>	<u>Description of Land Use Category</u>
A	60dBA (Exterior)	Tracts of lands in which serenity and quiet are of extraordinary significance and serve an important public need, and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose. Such areas could include amphitheaters, particular parks or portions of parks, or open spaces which are dedicated or recognized by appropriate local officials for activities requiring special qualities of serenity and quiet.
B	70 dBA (Exterior)	Residences, motels, hotels, public meeting rooms, schools, churches, libraries, hospitals, picnic areas, recreation areas, playgrounds, active sports areas, and parks.
C	75 dBA (Exterior)	Developed lands, properties or activities not included in categories A and B above.
D	--	For requirements on undeveloped lands see paragraphs 5a(5) and (6), this PPM.
E*	55 dBA (Interior)	Residences, motels, hotels, public meeting rooms, schools, churches, libraries, hospitals and auditoriums.

* Refer to Appendix M₃ for a narrative description of Department of Transportation Noise Standards

3) LEQ/LDN Noise Descriptors

In March of 1974 the Environmental Protection Agency published its document 550/9-74-004 "Information on Levels of Environmental Noise...." which was required by Section 5(a)(2) of the Noise Control Act of 1972. This document was intended as a guide and does not constitute an EPA regulation, standard or specification. The Administrator of the EPA, however, has recommended that all agencies of the Federal Government take immediate action to use the proposed LEQ/LDN methodology as the most appropriate single number rating scale for the evaluation of environmental noise.

To put it simply, L_{EQ} stands for the "equivalent A-weighted sound level over a given time interval." In measuring sound levels which fluctuate rapidly and over a large range of intensities, this method "translates" the fluctuating sound pressure level into a constant level having the same sound energy. The LDN or "day night level" is similar to L_{EQ} except that it is always the 24 hour equivalent sound level with a 10 decibel penalty applied to nighttime noise (from 10:00 PM to 7:00 AM). Thus, $L_{EQ}(24)$ and LDN both represent the energy average of noise levels over a 24 hour period, except that LDN adds the 10 decibel weighting factor during normal sleeping hours to account for the greater desire for quiet during the night and the disturbing effect of noise intrusions that rise above the prevailing nighttime noise level. Since the L_{EQ}/LDN concept is based on energy averages for a specified time period, a sound with twice the energy but lasting only half as long as another sound has the same value. And a sound with four times the energy as another need last only one quarter as long to have the same L_{EQ} . Appendix M₄ of this report relates qualitative descriptions of various LDNs to measurements made in a wide range of outdoor locations.¹⁵¹

151 For a more detailed discussion of the L_{EQ}/LDN methodology, refer to the following publications:

"Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety," U.S. Environmental Protection Agency, Office of Noise Abatement and Control, March 1974, Appendix A, and
"Noise in San Francisco," Report #2806, Bolt Beranek and Newman, Inc., July 1974, Appendix A.

4) EPA and City of San Francisco "Identified levels"

The levels of environmental noise identified by the EPA as being "requisite to protect public health and welfare with an adequate margin of safety" are presented in Exhibits 22. As shown, an indoor L_{DN} of 45 dB(A) is considered desirable for residential areas having no outside space, and, if the yearly average L_{EQ}(24) is greater than 70 dB(A), hearing loss will be a consideration. The expressed purpose of the "Levels Document," however, is to provide information on environmental noise and to suggest "goals" that should be achieved in the best interest of the "public welfare." The following quotation is from the "Draft Instruction Manual..." for "Levels Document":¹⁵²

"In providing information on the levels of noise requisite to protect public health and welfare with an adequate margin of safety, the 'Levels Document' was prepared without consideration of two very important ingredients -- technological feasibility and economic impact. Therefore the levels found in this document should not be simply enacted into law by regulating agencies; first, technical feasibility and economics should be considered. Thus, the distinction must be made between the ideal levels found in the 'Levels Document' and realistic (enforceable) levels to be included in noise control regulations."

The proposed "Transportation Noise Element" of the San Francisco Comprehensive Plan takes into account the economic and technological problems in its recommended L_{DN} values for various land uses. A comparison of the City's proposed land use compatibility chart (Exhibit 23) with the EPA's "Levels Document" shows the City's recommended levels in some instances to be somewhat higher for similar land use categories. Outdoor residential areas, for example, should not exceed L_{DN} of 55 in the EPA "Levels Document," whereas the City "Noise Element" will allow an L_{DN} of 60 before noise insulation measures need be considered.

¹⁵² "Draft Instruction Manual for General Utilization of the EPA Document (550/9-74-004) Identifying Acceptable Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety," U.S. Environmental Protection Agency, Office of Noise Abatement and Control, 1974.

**YEARLY AVERAGE* EQUIVALENT SOUND LEVELS IDENTIFIED AS
REQUISITE TO PROTECT THE PUBLIC HEALTH AND WELFARE WITH
AN ADEQUATE MARGIN OF SAFETY***

	Measure	Indoor Activity Inter- ference	Hearing Loss Considera- tion	To Protect Against Both Ef- fects (b)	Outdoor Activity Inter- ference	Hearing Loss Considera- tion	To Protect Against Both Ef- fects (b)
Residential with Out- side Space and Farm Residences	L _{dn}	45		45	55		55
	L _{eq} (24)		70			70	
Residential with No Outside Space	L _{dn}	45		45			
	L _{eq} (24)		70				
Commercial	L _{eq} (24)	(a)	70	70(c)	(a)	70	70(c)
Inside Transportation	L _{eq} (24)	(a)	70	(a)			
Industrial	L _{eq} (24)(d)	(a)	70	70(c)	(a)	70	70(c)
Hospitals	L _{dn}	45		45	55		55
	L _{eq} (24)		70			70	
Educational	L _{eq} (24)	45		45	55		55
	L _{eq} (24)(d)		70			70	
Recreational Areas	L _{eq} (24)	(a)	70	70(c)	(a)	70	70(c)
Farm Land and General Unpopulated Land	L _{eq} (24)				(a)	70	70(c)

Code:

- a. Since different types of activities appear to be associated with different levels, identification of a maximum level for activity interference may be difficult except in those circumstances where speech communication is a critical activity. (See Figure D-2 for noise levels as a function of distance which allow satisfactory communication.)
- b. Based on lowest level.
- c. Based only on hearing loss.
- d. An L_{eq}(8) of 75 dB may be identified in these situations so long as the exposure over the remaining 16 hours per day is low enough to result in a negligible contribution to the 24-hour average, i.e., no greater than an L_{eq} of 60 dB.

Note: Explanation of identified level for hearing loss: The exposure period which results in hearing loss at the identified level is a period of 40 years.

*Refers to energy rather than arithmetic averages.

*Source: Op. cit., EPA, "Information on Levels of Environmental Noise."

**SUMMARY OF NOISE LEVELS IDENTIFIED AS REQUISITE TO PROTECT PUBLIC
HEALTH AND WELFARE WITH AN ADEQUATE MARGIN OF SAFETY**

EFFECT	LEVEL	AREA
Hearing Loss	$L_{eq(24)} \leq 70 \text{ dB}$	All areas
Outdoor activity interference and annoyance	$L_{dn} \leq 55 \text{ dB}$	Outdoors in residential areas and farms and other outdoor areas where people spend widely varying amounts of time and other places in which quiet is a basis for use.
	$L_{eq(24)} \leq 55 \text{ dB}$	Outdoor areas where people spend limited amounts of time, such as school yards, playgrounds, etc.
Indoor activity interference and annoyance	$L_{dn} \leq 45 \text{ dB}$	Indoor residential areas
	$L_{eq(24)} \leq 45 \text{ dB}$	Other indoor areas with human activities such as schools, etc.

Explanation of Table

1. Detailed discussions of the terms L_{dn} and L_{eq} appear later in the document. Briefly, $L_{eq(24)}$ represents the sound energy averaged over a 24-hour period while L_{dn} represents the L_{eq} with a 10 dB nighttime weighting.
2. The hearing loss level identified here represents annual averages of the daily level over a period of forty years. (These are energy averages, not to be confused with arithmetic averages.)
3. Relationship of an $L_{eq(24)}$ of 70 dB to higher exposure levels.

EPA has determined that for purposes of hearing conservation alone, a level which is protective of that segment of the population at or below the 96th percentile will protect virtually the entire population. This level has been calculated to be an L_{eq} of 70 dB over a 24-hour day.

Transportation Noise Element for the Comprehensive Plan -- City of
San Francisco

LAND USE COMPATIBILITY CHART FOR COMMUNITY NOISE

Land Use Category	Sound Levels and Land Use Consequences (see explanation below) L _{dn} Value in Decibels 55 60 65 70 75 80 85						
	55	60	65	70	75	80	85
Residential -- All Dwellings, Group Quarters, Orphanages, Mobile Homes	A						
			B				
					C		
Transient Lodging -- Hotels, Motels	A						
			B				
					C		
School Classrooms, Libraries, Churches, Hospitals, Nursing Homes, etc.	A						
			B				
					D		
Auditoriums, Concert Halls, Amphitheatres, Music Shells			B				
					D		
Sports Arena, Outdoor Spectator Sports			B				
					D		
Playgrounds, Neighborhood Parks	A						
					C		
						D	
Golf Courses, Riding Stables, Water-based Recreation Areas, Cemeteries			A				
						C	
							D
Office Buildings; Personal, Business, and Professional Services	A						
			B				
					C		
Commercial -- Retail, Movie Theatres, Restaurants	A						
					B		
						C	
Commercial -- Wholesale and Some Retail, Industrial/Manufacturing, Transportation, Communications and Utilities	A						
						B	
							C
Manufacturing -- Noise-Sensitive	A						
Communications -- Noise-Sensitive					B		
							C

Explanation of Land Use Consequences

- A. Satisfactory, with no special noise insulation requirements.
- B. New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design.
- C. New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.
- D. New construction or development should generally not be undertaken.

C. YBC Noise Environment

Vehicular traffic is the dominant noise source in the project area, and will continue to be the dominant source following project completion. It is not anticipated that the proposed project will significantly impact the noise levels in the area; however, the already existing noise environment can be expected to have a negative impact upon some of the proposed land uses.

Given similar traffic parameters of vehicle speed and mix, a doubling of the traffic volume would be required to cause a 3-5 dB increase in the average noise level.¹⁵³ A 5 dB increase in noise levels is noticeable and is usually the point at which "some impact" would be defined based upon a change in the existing noise environment. Since streets and major traffic corridors are already operating at a high percentage of capacity, and parking facilities are not expected to increase, projected traffic levels will be close to the current volumes.¹⁵⁴ However, the current and projected noise levels in the area already exceed the noise criteria in most instances.

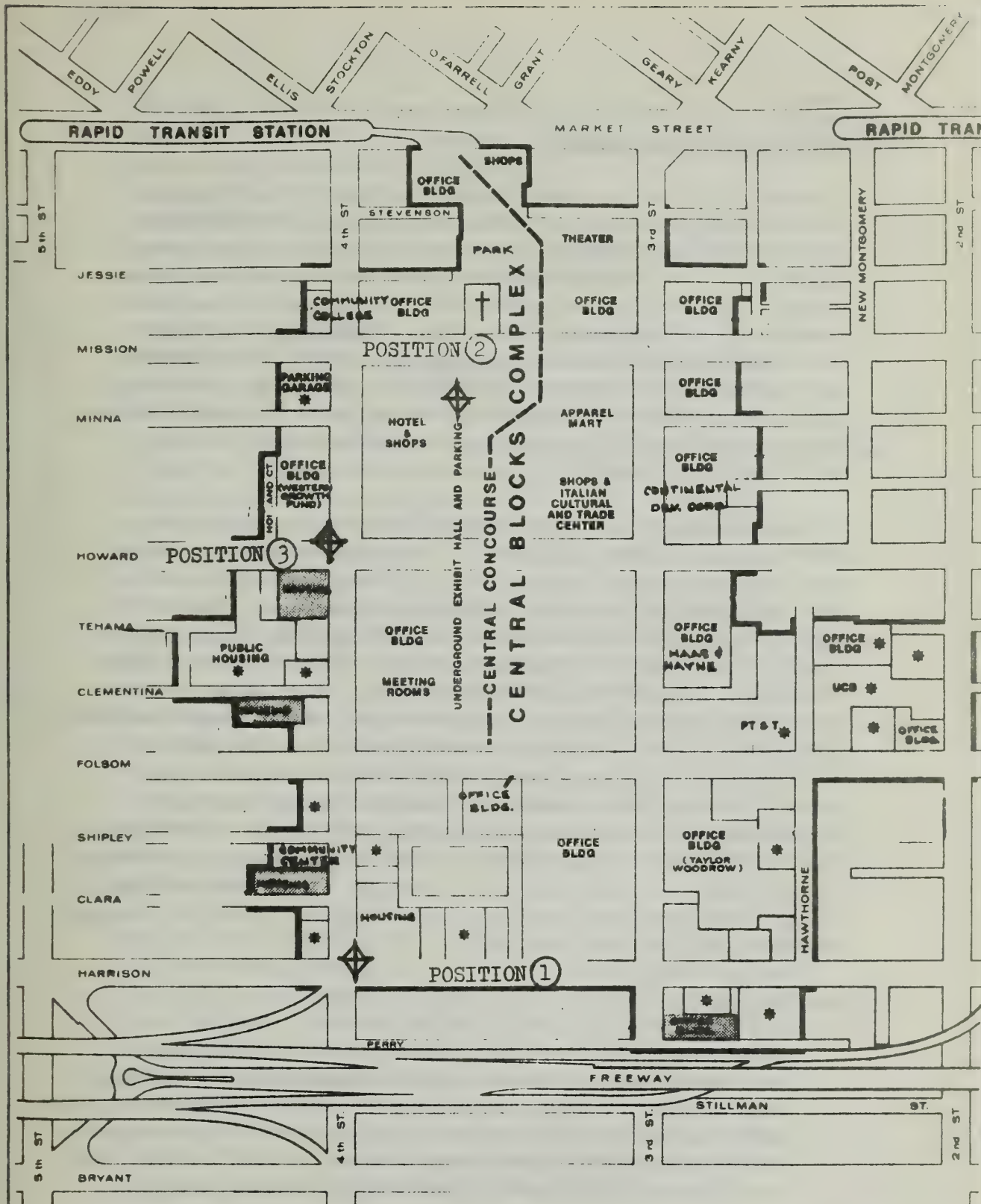
1) Measurement Description

Noise samples were taken at three locations on the site (refer to Exhibit 24). In general, the measurement locations were selected on the basis of being some of the most sensitive land uses which could be affected by traffic noise. The measurement positions were also selected as being representative of noise environments likely to be found in nearby areas exposed to similar sources, but of different land uses.

Statistical techniques were used to sample the noise environments. The instrument used for outdoor noise measurements was a DA 100 type one digital sound level meter with condenser microphone. Sample levels were coded onto magnetic tape by a Wang 600 programmable calculator. The instruments used to sample indoor noise levels were a B & K type two sound level meter and a B & K environmental classifier. A windscreen was used with the microphones and the instruments were field calibrated before and after each test. Measured results are expressed in terms of "A-weighted" decibels. All averages of noise levels are energy rather than arithmetic averages unless otherwise

153 "Highway Noise - A Design Guide for Highway Engineers," Report #117, Highway Research Board, 1971.

154 Refer to Section E.1. Traffic.



* Completed (Construction/Rehabilitation)

YERBA BUENA CENTER

PROJECT ELEMENTS AND
— NOISE MEASUREMENT LOCATIONS —

0 FEET 300



noted.¹⁵⁵

2) Results of Measurements

It would be difficult to measure noise levels at all building sites in the vicinity of the project, therefore certain critical locations were chosen representing the "worst conditions" of land use and exposure. Since housing and park land uses are the most sensitive in terms of noise, special emphasis is given to these areas where noise levels are anticipated to be high. The $LEQ(24)$ for each measurement position at the building line indicates that the noise environments at each measurement site are quite similar. It may be inferred from this fact that most sites in the project area fronting onto major streets will experience noise environments similar to the positions measured.

The results of measurements made at Positions 1, 2 and 3 are shown in graph form in Figures 1, 2 and 3 respectively. These results are expressed in terms of the A-weighted distribution of noise levels for each hour of the day. In addition, Figures 1a, 2a and 3a express the same measured data in terms of LEQ and LDN for the purpose of comparison with the City's proposed "Noise Element" and the EPA's "Levels Document." Since noise measurements were made at Position 1 for a four day period (which included a weekend), Fig. 1b is also presented in this report to indicate the envelope of LEQ/LDN values within which noise levels may normally occur. It is interesting to note that while there may be considerable differences between the hourly LEQ s on any given day (up to 9 dB(A)), the difference between maximum and minimum LDN s for the 4 day period was only 2 dB(A). It is also interesting to note that the average hourly L_{10} s are within ± 1 dB of the average hourly LEQ s.

a) Housing

Under current HUD policy, if noise levels exceed 65 dB(A) for 8 hours per day, the site must be categorized as "normally unacceptable" for housing purposes. The "normally unacceptable" category means that the site is not eligible for HUD participation unless noise levels to both the indoor and outdoor environments are attenuated sufficiently. It also means that the cost and

¹⁵⁵ Refer to Appendix M5 for a diagram of the instrument set-up. Refer to Appendix M6 for photographs showing the relationship of microphones to surrounding buildings.

technology required to attenuate the noise may not be so extraordinary that projects in this category should necessarily be rejected on the basis of noise alone.

The HUD 8-hour limit shown on the right side of Figures 1, 2 and 3 of Appendix M7 indicates the noise level which is just exceeded for 8 hours per 24 hour period.

Measurement positions 1 and 3 are representative of the "worst conditions" of noise exposure in the vicinity of sites to be utilized for housing. The levels just exceeded for 8 hours per day are 70 dB(A) at both locations ("normally unacceptable").¹⁵⁶ It can be seen, therefore, that the excess noise to be attenuated to outdoor residential environments is 5 dB(A) above the HUD 8-hour criterion of 65 dB(A). A 5 dB(A) attenuation to sensitive outdoor areas (such as balconies, patios or other sitting and gathering places) may be achieved in a variety of ways, depending on the specific design of the project. A 5 dB(A) attenuation with distance alone would be roughly equivalent to setting sensitive outdoor areas back about double the distance from the centerline of Fourth Street to the building line. Noise barriers can also be used to effectively attenuate noise by up to 20 dB(A) if properly designed and located. Barriers, however, should not be designed so that other considerations such as residential security, sun angles and aesthetics are sacrificed in the process. Small sites will of course decrease the potential for attenuation with distance and for using building placement as a means of shielding outdoor areas.

Measurements made inside the Mars and Harrison Hotels indicate that the average indoor to outdoor noise attenuation is about 15 dB(A) with windows closed. An additional 5 dB(A) attenuation would be needed to meet the HUD criteria for "sleeping quarters." Windows are usually the acoustical "weak link" in a building facade. For this reason it is necessary in many instances to keep the windows closed and use mechanical rather than natural ventilation. Special windows may be needed in some living units to insure an adequate sound transmission loss from the outdoor to indoor environments.

¹⁵⁶ Refer to Appendix M7 for graphs of measurement readings.

Outdoor noise levels at most housing sites exceed the EPA "identified level" by 20 dB(A); similarly, the City's criterion for housing is exceeded by 15 dB(A).¹⁵⁷ Since most noise standards assume that there will be an indoor to outdoor noise attenuation of about 10 dB(A) when windows are left partially open for ventilation, it can be seen that the total indoor to outdoor attenuation of noise needed at Positions 1 and 3 would be 30 dB(A) to meet the EPA "identified level" indoors and 25 dB(A) to meet the City's criterion. If we assume that the indoor to outdoor noise insulation needed to meet the HUD standard is 20 dB(A), then this amount of noise insulation falls short of meeting the EPA level by 10 dB(A) and the City's criterion by 5 dB(A). In other words, even if the HUD criteria are met, indoor noise levels at some housing sites would be subjectively about twice as loud as what the EPA considers "ideal".

b. Parks

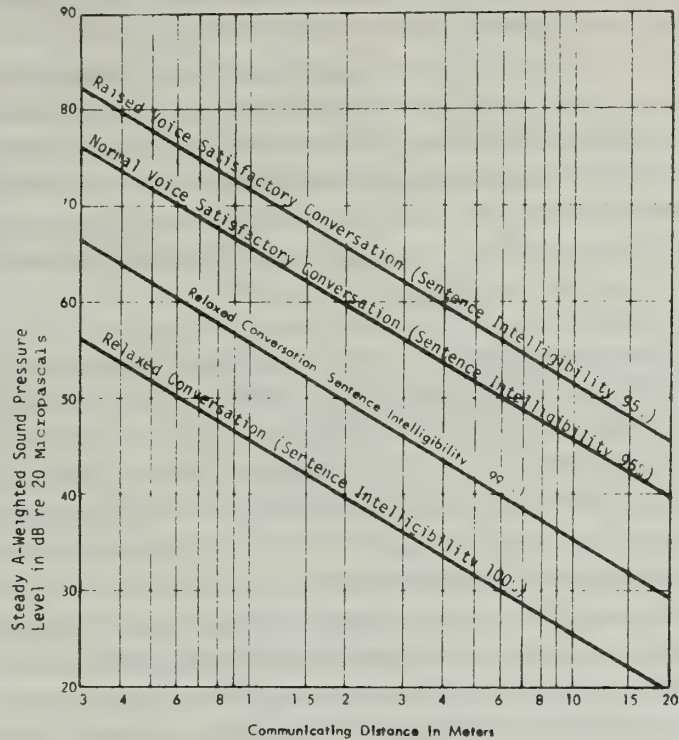
The only federal standard at this time which sets maximum limits on noise levels in public open spaces is the DOT Policy and Procedure Memorandum 90-2 (refer to Exhibit 21). This standard is necessarily somewhat vague in its definition of a "park" because the concept of a park may cover an extremely wide range of activities -- from a baseball diamond to a nature trail. In general, however, the DOT standard sets an upper limit of $L_{10} = 70$ dB(A) for outdoor activity areas.

The criteria for noise impacts in public parks and open space are related to the need for oral communication between people separated by various distances, and the vocal effort which would normally be associated with a particular activity. Once these two parameters are known, Exhibit 25 can then be used to determine what noise level will cause communication interference. Although urban traffic noise is not of the "steady" character shown in Exhibit 25, this should not significantly affect the table's usefulness. The following quotation is taken from page D-6 of the EPA "Levels Document" to explain why:

157 Refer to Appendix M7, Figures 1a and 3a for noise measurement graphs.

Exhibit 25

Communication Distances As A Function of Noise Levels*



Maximum Distances Outdoors Over Which Conversation is Considered to be Satisfactorily Intelligible in Steady Noise.^{D-1, D-2}

STEADY A-WEIGHTED NOISE LEVELS THAT ALLOW COMMUNICATION WITH 95 PERCENT SENTENCE INTELLIGIBILITY OVER VARIOUS DISTANCES OUTDOORS FOR DIFFERENT VOICE LEVELS ^{D-2}

VOICE LEVEL

COMMUNICATION DISTANCE (meters)

	0.5	1	2	3	4	5
Normal Voice (dB)	72	66	60	56	54	52
Raised Voice (dB)	78	72	66	62	60	58

Source: "Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety," U. S. Environmental Protection Agency, Office of Noise Abatement and Control, March 1974.

"The results, shown in Table D-2 (Exhibit 25), demonstrate that, for 95 percent sentence intelligibility, normal vocal effort, and 2 meter separation between talker and listener outdoors, the maximum L_{EQ} value associated with continuous noise is less than the maximum value for an environmental noise whose magnitude varies with time. It is therefore concluded that almost all time-varying environmental noises with the same L_{EQ} would lead, averaged over long time periods, to better intelligibility for the same L_{EQ} values of continuous noise.¹⁵⁸

Again, it is interesting to note the similarity between the L_{10} and the L_{EQ} for urban traffic noise. During the period from 8:00 AM to 6:00 PM at Position 2, there was only $\frac{1}{2}$ dB difference between the average L_{10} and the average L_{EQ} . Position 2 is located along the proposed main concourse at approximately the north edge of the "central plaza" (75' south of the centerline of Mission Street). Given that the average L_{10} or L_{EQ} equals 65 dB (A) at this location, it can be seen from Exhibit 25 that the noise from street traffic will permit conversations at a distance of about 3 feet with "normal" voice level or at a distance of about 7 feet with "raised" voice level.

c) Church

The Federal standard which establishes criteria for noise exposure in and around churches is the DOT Policy and Procedure Memorandum 90-2 (see Exhibit 21). This standard establishes maximum L_{10} s of 70 dB (A) outdoors and 55 dB(A) indoors. St. Patrick's Church is located almost directly across the street from Position 2 so that it is possible to relate outdoor noise levels to activity interference in the same way as that shown for parks and open space in the previous section. Noise levels inside St. Patrick's Church will not exceed the DOT standard since the building facade is mostly heavy masonry with fixed leaded glass windows. The noise insulation afforded by this type of construction should be at least 25 dB(A) or more.

158 Op. cit., EPA, "Information of Levels of Environmental Noise."

d) Commercial

Because of the wide range of activities that may be associated with commercial land uses, it is difficult to identify any single maximum level which would be appropriate to all of them. The DOT standard, however, generally requires that the L_{10} in commercial areas not exceed 75 dB(A) (Refer to Exhibit 21).

Measurements made at Position 3 were considered typical of the worst conditions of noise exposure to be found at sites used for commercial purposes. The average L_{10} at this location from 8:00 AM to 6:00 PM is 77 dB(A). It can be stated then that outdoor noise levels in some locations will exceed the DOT criteria for commercial uses by about 2 dB(A). This should not be considered a significant impact, however, since outdoor areas in front of commercial facilities generally just provide for pedestrian ingress and egress and are not normally places where people will spend extended periods of time. It should also be pointed out here that much of the small retail and restaurant facilities for the project are designed with their orientation toward the central plaza and away from busy streets. This will allow for outdoor commercial activities such as restaurants and street vendors.

Most of the commercial activities associated with the Yerba Buena project will be more concerned with indoor noise levels. In this regard it can be seen from p. 2 of Appendix M₃ that single glazed masonry structures having year-round air treatment will normally reduce exterior noise levels by about 25 dB(A). This will allow exterior noise levels to reach an L_{10} of 80 dB(A) before an indoor design level of 55 dB(A) is exceeded. Given that these commercial facilities will be of a similar construction, indoor noise levels are not expected to be a problem.

Hotels are usually considered commercial facilities, but in terms of noise exposure, they should more appropriately be evaluated under the same noise criteria as housing. Since the proposed hotel for the Yerba Buena project is expected to have year-round air treatment, guests

will not have to rely on open windows for ventilation and the noise insulation of the building will thereby be very much improved. It is still possible, however, that special acoustical treatment will need to be considered by the architect to insure satisfactory indoor noise levels.

3) Construction Noise

Construction noise is highly variable due to the wide variety of activities and types of equipment used in the construction of a building. Any statement of noise levels to be expected from such activity will therefore be quite general in nature. Considerable noise is expected from excavation and foundation work. Pile drivers, jackhammers and trucks are likely to be the major noise producers. Exhibit 26 presents the noise levels generated by these and other construction activities.

The noise intensity will be greatest during the early construction stages when the major development of the Central Blocks area is underway. This intensity will be reduced as construction proceeds to the peripheral blocks, and private office development. The construction of these latter facilities will be dispersed over a far greater time period, avoiding the concentration of activities which will occur in the Central Blocks area.

The City's noise ordinance places certain limits upon the level of noise output from construction equipment, which should serve to somewhat mitigate the potential negative impact during this phase. Unless a special permit is obtained, demolition, excavation and construction activities will be prohibited between the hours of 8:00 p.m. and 7:00 a.m. All powered construction equipment, with the exception of impact tools, are regulated by a maximum emission standard of 85 dB(A) when measured at 100 feet, to be further limited to 80 dB(A) by late 1976. Impact tools shall be required to have exhaust mufflers which assure maximum attenuation of noise. Enforcement of these provisions is delegated to the Department of Public Works with penalties provided in an amount not to exceed \$500 or six month imprisonment. However, even with these mitigating measures, a short-term negative impact of excessive noise is still expected to exist during the construction phase.

EXHIBIT 26

IMMEDIATE ABATEMENT POTENTIAL OF CONSTRUCTION EQUIPMENT*

EQUIPMENT	NOISE LEVEL IN dB(A) AT 50'		IMPORTANT NOISE SOURCES ²	USAGE ³
	(Present)	(With feasible noise control) ¹		
EARTHMOVING				
front loader	79	75	E C F I H	.40
backhoes	85	75	E C F I H	.16
dozers	80	75	E C F I H	.40
tractors	80	75	E C F I W	.40
scrapers	88	80	E C F I W	.40
graders	85	75	E C F I W	.08
truck	91	75	E C F I T	.40
paver	89	80	E D F I	.10
MATERIALS HANDLING				
concrete mixer	85	75	E C F W T	.40
concrete pump	82	75	E C H	.40
crane	83	75	E C F I T	.16
derrick	88	75	E C F I T	.16
STATIONARY				
pumps	76	75	E C	1.00
generators	78	75	E C	1.00
compressors	81	75	E C H I	1.00
IMPACT				
pile drivers	101	95	W P E	.04
jack hammers	88	75	P W E C	.10
rock drills	98	80	W E P	.04
pneumatic tools	86	80	P W E C	.16
OTHER				
saws	78	75	W	.04
vibrator	76	75	W E C	.40

NOTES:

1. Estimated levels obtainable by selecting quieter procedures or machines and implementing noise control features requiring no major redesign or extreme cost
2. In order of importance:
 T Power Train and Gearing
 C Engine Casing
 E Engine Exhaust
 P Pneumatic Exhaust
 F Cooling Fan
 W Tool-Work Interaction
 H Hydraulics
 I Engine Intake
3. Percentage of time equipment is operating at noisiest mode in most used phase on the site.

*Source: Noise from Construction Equipment and Operations, Building Equipment and Home Appliances, " U. S. Environmental Protection Agency, Office of Noise Abatement and Control, December 31, 1971.

Summary

Current noise levels in the Project area exceed acceptable standards for many of the existing and proposed land uses, with residential uses being impacted the most substantially. Efforts by the City to further reduce parking in the project and surrounding area, and to provide additional transit inducements, should serve to severely limit vehicular traffic, which is the dominant noise source in the area. Thus, the completed project is not expected to negatively affect noise levels, and could potentially create a slight reduction. Use and needs analyses conducted by TODCO, the consultant for the proposed low-income housing, address the need to provide protection from traffic and noise influences in ways that are compatible with the life-styles of the future residents. Thus, the final design of these units is expected to mitigate the potential negative noise impact upon this housing.

Construction noise will be mitigated somewhat through enforcement of the City's noise ordinance. However, a short-term negative impact from this source cannot be avoided entirely.

3. Air Quality

The air quality impacts of the proposed Project were studied with the assistance of the Environmental Protection Agency and through a contract with a private consultant, formerly with URS Research Co. The consultant supplemented his earlier studies, conducted for the State-required EIR, with a description of the overall methodology, and of the equations, input parameters and diffusion models used to determine pollutant impact. The studies were further supplemented with a comparison of output parameters against Federal and State air quality standards, an estimate of vehicle miles traveled (VMT) as a result of the proposed Project, and an estimate of worst case conditions which could occur if unlimited parking were to be provided in the surrounding area.¹⁵⁹

In general, the present air quality average values for the air pollution designation throughout the Bay Area is within light air pollution classification.¹⁶⁰ The number of days in which the ambient air quality standard set by federal, state and district law is exceeded in San Francisco is small.¹⁶¹ No new major public redevelopment projects are currently planned for San Francisco. Those which are currently underway, other than YBC, have completed the major construction activities, with the exceptions of planned additional housing units in Chinatown (approximately 180 units) and Hunters Point (approximately 900 units). Thus, the cumulative impact of these projects has essentially been incorporated into the existing Bay Area air pollution statistics.

159 Refer to Section IV.E.1 - Traffic

160 There are six BAAPCD Air Quality Category Designations; in order of severity, they range as follows: clean, light, significant, heavy, severe, emergency.

161 Letter from D. J. Callaghan, Air Pollution Control Officer, Bay Area Air Pollution Control District (BAAPCD), January 22, 1973.

The meteorological conditions and topography of the City can significantly affect the level of air quality when certain conditions occur simultaneously. Therefore, the air quality in the YBC area was studied under a variety of vehicular and meteorological conditions.¹⁶² All estimates included in this text represent worst meteorological conditions.

Currently, the primary source of air pollution in the YBC area is from vehicles within or passing through the Project area, and from vehicles on the James Lick/Bayshore Freeway (in instances where a south wind blows pollutants northward into the downtown area). The proposed Project will affect the existing air quality in the area in several ways:

- Effect of buildings on wind flow;
- YBC generated traffic;
- Natural gas combustion;
- Exhaust emissions from the parking garages; and
- Construction activities

The effects are discussed below in relation to overall Regional air quality and are summarized in the final section in relation to Federal and State air quality standards.

Effect of Buildings on Wind Flow

The proposed buildings in the Project area will serve to slightly moderate the wind flow, affecting the speed, direction and degree of turbulence. An "urban canyon" effect is likely to be created which can concentrate and channel local air pollutants. This will be offset, to a certain degree, by the slightly increased wind turbulence induced by the interaction of the wind current with the structures. These effects upon the meteorological conditions have been considered in the diffusion estimates included in this text.

162 Extensive wind tunnel testing was conducted under simulated conditions by J. E. Cermack, F. H. Chandbry, A. C. Hansen, and J. A. Garrison, Wind and Air Pollution Control Study of Yerba Buena Center, June 1972. Refer to Appendix M, for the Basic Meteorological Parameters.

YBC - Generated Traffic - Vehicle Miles Traveled (VMT)

As discussed in Section IV.E.1. "Traffic," YBC as currently planned is not projected to increase afternoon peak hour traffic. However, it will prolong daytime off-peak traffic and increase nighttime peak traffic when the Public Facilities are in use.

As a result of the net reduction in available parking spaces in the Project area and the expected absorption of many East Bay commuters by public transit, a reduction in VMT is expected during the afternoon peak period, following Project completion. Current peak period VMT per hour generated by the area is estimated at approximately 13,100. Projected VMT per peak hour in the early 1980's, following project completion, is estimated at 12,800.¹⁶³ This minor positive impact can only be realized if the currently planned parking and street capacities are maintained. Any increases to accommodate additional automobiles would correspondingly increase the number of VMT. If the projected modal traffic split were not contained by these limiting factors, the VMT per hour during peak periods could theoretically increase to as high as 80,000 during maximum use of all facilities.¹⁶⁴ However, the recent efforts of the Chief Administrative Officer to establish policy reducing and limiting the availability of parking and increasing transit programs and incentives is expected to prevent even a minor increase from occurring.¹⁶⁵

On occasions when all evening facilities (Sports Arena, Convention Center and Theater) are accommodating average flow crowds, the number of evening VMT per hour generated could be as much as 38,000 (6,100 vehicles) if all participants exited at the same hour. If the situation were ever to occur that all three facilities were simultaneously in use to maximum capacity, and all participants exited at the same time, VMT could reach 100,000 per hour (17,000 vehicles) during the evening surge period, if unlimited parking and street capacity existed. These estimates represent a net increase in VMT generated by the Project area during this period.¹⁶⁶

163 Refer to Tables I and IV in Section IV.E.1 for the model splits used; and to Appendix N₂ for the breakdown of VMT.

164 Refer to Appendix N₂.

165 Refer to Section IV.E.1, "Traffic."

166 Refer to Appendix N₂

The proposed Project could also increase the average hourly VMT during the off-peak hours by approximately 16,000 (2,000 vehicles) during average conditions, and 37,000 (5,300 vehicles) during maximum use of the facilities, if the turn-over of parking spaces is rapid enough to accommodate this number of cars.

Table I summarizes the expected effect of these increased VMT for the air quality Region, based upon an estimated Regional increase of approximately 16,000 vehicles traveling an average of 7.8 miles per day in relation to YBC. 167

TABLE I
1982 Projected Annual Pollutant Increase
from YBC-Generated VMT*
(tons/year)

	<u>CO</u>	<u>HC</u>	<u>NO_x</u>	<u>Part.</u>	<u>SO_x</u>
YBC VMT	550	44	26	4	7
Air Basin**					
Total	730,000	350,000	200,000	84,000	300,000
%	0.08%	0.01%	0.01%	0.005%	0.002%

* Based upon 1982 emission factors, at worst case condition of 20 mph (stop and go) traffic.

** Nine-County air basin total, estimate for 1982 - BAAPCD, 1972 Source Inventory of Air Pollutant Emissions. (The percentage of the total SF City and County emissions are approximately as follows: CO - 0.5%; HC - 0.01%; NO_x - 0.01%; Particulates - 0.005%; and SO_x - 0.002%.)

Natural Gas Combustion

As discussed in Section IV, B, 5, "Utilities," the proposed Project is estimated to consume approximately 409.6 million cubic feet (MMcf) of natural gas per year. This will be equal to approximately 46,500 cubic feet/hour during average hours and approxi-

167 This represents only the increase in traffic created by YBC. The sports arena traffic is not included here, since it is not expected to represent a regional increase.

mately 543,000 cubic feet/hour during peak hours. Applying emission rates in grams per second, the concentration of hourly emissions from natural gas consumption during worst meteorological conditions are estimated as follows:¹⁶⁸

TABLE II

Natural Gas Emission Concentrations
at Central Plaza Location

	<u>CO</u> (ppm)	<u>HC</u> (ppm)	<u>NO_x</u> (ppm)	<u>Part.</u> (ug/m ³)	<u>SO_x</u> (ppb)
Avg. Hour	0.003	0.001	0.01	2.6	0.04
Peak Hour	0.68	0.48	0.20	100.0	8.8

These emissions constitute a minor portion of the air quality region pollutants.

TABLE III
1982 Projected Annual Natural Gas Emissions
(tons/year)

	<u>CO</u>	<u>HC</u>	<u>NO_x</u>	<u>Part.</u>	<u>SO_x</u>
YBC					
Natural Gas	4	1.6	15	4	0.12
Air Basin					
Total*	730,000	350,000	260,000	84,000	300,000
%	0.0005%	0.0004%	0.0006%	0.005%	0.00004%

*(The percentages of the total S.F. City and County emissions are approximately as follows: CO - 0.0036%; HC - 0.0024%; NO_x - 0.079%; Particulates - 0.057%; SO_x - 0.0001%.)

If long-range future gas supply and demand were to necessitate the use of fuel oil instead of natural gas, these pollutant emissions would be proportionately increased as shown below:

168 URS Research Company, Draft EIR, pg. V-I-28, Tables I-19 through I-21. Refer to Appendix N₃ for the methodology and input parameters employed.

TABLE IV

Comparison of Residual Fuel Oil and Natural Gas

	Residual Oil emissions, pounds per 10 ⁶ BTU	Natural Gas emissions, pounds per 10 ⁶ BTU	Fuel Oil/ natural gas
particulates*	0.15	0.018	8X
SO ₂ **	0.5	0.0006	800X
CO	0.03	0.019	1.6X
HC	0.02	0.008	2.5X
NO _x	0.4	0.1	4X

* Assuming no treatment

** Assuming 1/2% Sulfur fuel oil content

However, it is not anticipated that the use of fuel oil will be required in the foreseeable future.

Exhaust Emissions from the Garages

Pollutants will be emitted in the area of the Central Plaza through the stacks from the underground parking garages. Although the Apparel Mart garage has not yet been designed, for purposes of these analyses, it is assumed here that the eventual ventilation characteristics will be similar to those of the proposed public parking garage.

The procedures and dispersion estimates for determining emissions were developed in the wind tunnel study undertaken by Cermak. The source strengths are based upon the following parameters:

- fresh air capacity: range of 6 to 22 air changes per hour
- traffic: afternoon peak (1600 cars/hour)
evening peak (max. of 2400 cars/hour)
normal average (150 cars/hour)
- average travel in garage: 600 ft. per car
- speed in garage: 10 mph
- emission factors employed (grams/mile, 1982)

<u>CO</u>	<u>HC</u>	<u>NO_x</u>	<u>Part</u>	<u>SO_x</u>
27	1.7	0.65	0.1	0.18

Garage emission concentrations under southwind conditions are estimated as follows:

TABLE V

Garage Emissions
Resulting Concentrations at Central Plaza

	<u>CO</u> (ppm)	<u>HC</u> (ppm)	<u>NO_x</u> (ppm)	<u>Part.</u> (uglm ³)	<u>SO_x</u> (ppb)
Avg. Hour	0.0	0.00	0.00	0.04	0.02
Peak Hour	2.6	0.14	0.02	5.6	2.7

Again, these constitute a minor percentage of the overall Regional pollutants.

TABLE VI

1982 Projected Annual Garage Emissions
(tons/year)

	<u>CO</u>	<u>HC</u>	<u>NO_x</u>	<u>Part.</u>	<u>SO_x</u>
YBC	4.5	0.28	0.11	0.02	0.03
Air Basin					
TOTAL	730,000	350,000	260,000	84,000	300,000
%*	0.0006%	0.00008%	0.00004%	0.00002%	0.00001%

*(The percentages of the total SF City and County emissions are approximately as follows: CO - 0.004%; HC - 0.0004%; NO_x - 0.0005%; Part. - 0.0002%; SO_x - 0.00004%.)

Summary of Long-Term Air Quality Impacts

The following table summarizes the total long-term increase in pollutant emissions expected to be generated by the proposed YBC facilities:

TABLE VII
Summary of Long-Term Regional Impacts
(tons/year for 1982)

	<u>CO</u>	<u>HC</u>	<u>NO_x</u>	<u>Part.</u>	<u>SO_x</u>
VTMT 550		44	26	4	7
Natural Gas 4		1.6	15	4	0.12
Garage <u>4.5</u>		<u>.28</u>	<u>.11</u>	<u>.02</u>	<u>.03</u>
TOTALS 559		46	41	8	7
Air Basin					
Totals*	730,000	350,000	260,000	84,000	300,000
%	0.08%	0.01%	0.02%	0.01%	0.002%

* The percentage of the total SF City and County emissions are approximately as follows: CO - 0.51%; HC - 0.07%; NO_x - 0.29%; Part. - 0.14%; and SO_x - 0.009%

The expected increase in air pollutants created by the proposed YBC Project are projected to constitute a small percentage of total Regional emissions. The largest contributors to the increase in pollutants will be the additional daytime off-peak and evening traffic created by the convention center, theater, apparel mart and retail stores. The peak hour commuter traffic is expected to remain relatively stable, and, thus, is not expected to increase the emission of air pollutants. There is likely to be a slight decrease in peak hour emissions due to the reduction in available low-cost all-day parking spaces.

Natural gas emissions will contribute mainly to the level of nitrous oxides and particulates in the air. Although the parking garages do not directly contribute a substantial amount of pollutants, they can be considered an indirect source in that they provide accommodations for vehicles in the area.

Tables VIII and IX present the expected air pollutant concentrations in the YBC central plaza area from all sources in 1982, as compared to Federal and State hourly emission standards. The study of wind flows and resulting pollution concentrations conducted by Cermack determined that the central plaza area experienced the highest peak and annual air pollutant concentrations in the project area, due to the addition of garage emissions in this portion of the project. The next highest concentrations were found to be the Howard and Folsom Street overpasses and the sections of Market Street closest to the project. The former had concentrations of approximately one-half the maximum central plaza concentrations, and the latter had concentrations less than 1% of worst central plaza concentrations. All other areas of the project were lower still. Thus, the central plaza concentrations are presented here as representing the worst-case location. In addition, these projections are based upon the combination of worst-case meteorological and peak garage conditions for the Project as currently planned. These conditions include a southwind of one metre per second velocity, a stable atmosphere, and peak traffic, assuming congested stop-and-go traffic during the peak periods.

It is anticipated that this combination of conditions would only occur two or three times per year, and represents the maximum potential pollutant emissions. All other areas of the project can be expected to experience a lesser impact.

Table VIII presents both the background air quality component and the project-related component. The ambient concentrations include freeway contributions, and Bay Area Air Pollution Control District trend predictions.¹⁶⁹ The YBC vehicular

¹⁶⁹ Refer to Appendix N₅ for an explanation of the equations, diffusion models and input parameters employed.

contributions include those emissions generated by the parking garage, and by all vehicles specifically generated in the project vicinity. The natural gas emissions are those attributable to the YBC project.

It is seen that several standards could be exceeded. These include:

- Calif. one hour NO₂ standard
- Federal primary and secondary 3 hour HC standard
- Calif. and Fed. primary and secondary 24 hour particulate standards

To project the most conservative estimates, it was assumed that all NO_x was NO₂ and that the HC was reactive. Therefore, these represent a worst case situation. The natural gas emissions were assumed to be untreated, and therefore are responsible for potentially large particulate concentrations. If these emissions are properly treated, they could be reduced by as much as 90%. The maximum plaza 24 hour particulate concentration would then be about 80 ug/m³ which is below the standards. Therefore, these standards as listed above may be considered as maximum possible conditions and related potential problems. The frequency of these conditions occurring is considered slight.

All projections are based upon automobile emission factors developed by the California Air Resources Board, which incorporate projected standards and deterioration factors for current and future pollution control devices. The extent, if any, to which emission standards may be relaxed or future control devices prove less effective than anticipated, these projections could be proportionately increased.¹⁷⁰ The projections are stated for the year 1982, since that is the year that the major portion of YBC construction will be completed. In earlier years the emission factors per vehicle are expected to be greater than in 1982. However, less traffic will be generated and accommodated by the incompleted project during these earlier years, and, thus, 1982 represents the worst case condition for project-related activities.

¹⁷⁰ Refer to Part II, Comments from the Bay Area Air Pollution Control District.

TABLE VIII

1982 Air Pollutant Concentrations
(Southwind 1 hr/sec)

	CO (<u>ppm</u>)	HC (<u>ppm</u>)	NO _x (<u>ppm</u>)	Part. (<u>ug/m³</u>)	SO _x (<u>ppb</u>)
Nat. Gas (1 hr peak)	.7	.5	.2	100	8.8
YBC Vehicular Contribution					
1 hr. (peak)	4.6	.24	.04	9.8	4.8
3 hr. "	3.2	.17	.03	6.9	3.4
8 hr. "	1.7	.09	.01	3.7	1.9
12 hr. "	1.4	.07	.01	3.0	1.5
24 hr. "	.9	.04	.008	1.9	.9
Ambient Quality					
1 hr. (peak)	8	1	.2	95	30
3 hr. "	6	.7	.15	85	22
8 hr. "	3	.4	.08	80	12
12 hr. "	3	.3	.07	75	10
24 hr. "	2	.2	.04	70	7

* Concentration at Central Plaza, which represents the peak condition due to garage exhaust emissions, Projected to 1982.

The following table compiles this information and compares the resulting concentrations with applicable standards:

TABLE IX
Comparison of Ambient Air Quality Standards
with Maximum Expected Concentrations

	<u>CO</u> <u>(ppm)</u>	<u>HC</u> <u>(ppm)</u>	<u>NO_x</u> <u>(ppm)</u>	<u>Part.</u> <u>(ug/m³)</u>	<u>SO_x</u> <u>(ppb)</u>
One Hour					
Concentration	13	1.7	0.44	210	44
State	40		.25**		500***
Fed. Prim.+	35				
Fed. Sec.++	35				
Three Hour					
Concentration	9.9	1.4	.38	190	34
State					
Fed. Prim.		.24*			
Fed. Sec.		.24*			
Eight Hour					
Concentration	5.7	0.91	0.29	180	23
State					
Fed. Prim.	9				
Fed. Sec.	9				
Twelve Hour					
Concentration	5.1	0.89	0.28	180	20
State	12				
Fed. Prim.					
Fed. Sec.					
Twenty-four Hour					
Concentration	3.6	0.74	0.25	170	17
State				100	40***
Fed. Prim.				260	30***
Fed. Sec.				150	30***

* Standard written for reactive non-methane hydrocarbons (NMHC), while estimate is for total hydrocarbons (THC). To be conservative, assume that NMHC = THC to define problem potential.

** Standard written for NO₂ only, while estimate is for NO_x, assume NO_x=NO₂ to be conservative.

*** Standard written for SO₂, while estimate is for SO_x, if SO_x=SO₂, a worst case, the standards would still not be exceeded.

+ Federal Primary Standards are defined as levels which are "necessary with adequate margin of safety to protect the public health."

++ Federal Secondary Standards are defined as levels which are "necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant."

Table X presents the worst-case carbon monoxide concentrations if the maximum modal split were allowed to occur. However, this should be viewed as a theoretical maximum only. To reach this level of VMT would require over 17,000 parking spaces (the equivalent of over 100 acres of surface parking lots or approximately 10 garages the size of the proposed public garage in the immediate area of the project); a doubling of the local street capacity; the simultaneous use of all public and private facilities to full capacity; and an expansion of the North Bay and East Bay corridors to accommodate the additional traffic.

In addition, as discussed previously, recent actions by the City to develop parking limitations and expanded transit programs would preclude even a minor increase beyond the currently expected concentrations.

TABLE X

Theoretical Maximum CO Concentrations

Maximum	time	Ave/hr #vehicles	Ave/hr VMT	Max on site conc. CO, ppm @ central plaza
1 hr.	8-9 pm or 11-12 pm	17,000	99,000	18 ppm + 8 ppm ambient = 26
3 hr.	4 pm- 7 pm	7,000	60,000	7 ppm + 6 " " = 13
8 hr	4pm- midnight	7,000	50,000	7 ppm + 3 " " = 10
12 hr	noon - midnight	5,500	40,000	6 ppm + 3 " " = 9
24 hr	---	3,000	20,000	3 ppm + 2 " " = 5

Construction Activities

The demolition of the on-site buildings is nearly complete (83%). Those remaining to be demolished are subject to the procedures outlined in the National Emission Standards for Asbestos, which will minimize any potential impact in the handling of building appurtenances which may be insulated or fireproofed with asbestos.

Construction activities, and most particularly the excavation stage, will have major short-term negative impacts on the air quality in the area. Particulate content of the air will be substantially increased as a result of the movement and hauling of dirt and rubble. This excavation phase will consist of the movement of approximately one million cubic yards of earth over approximately a four month period in the Central Blocks area, and another million cubic yards in the Peripheral areas, dispersed over several years.

Gaseous emissions will also be increased due to asphalt paving and emissions from construction vehicles. Pollutant emissions during the excavation phase are estimated as follows: 171

TABLE XI

Average Pollutant Emissions During Excavation
(lbs/hour)

<u>CO</u>	<u>HC</u>	<u>NO_x</u>	<u>Part.</u>	<u>SO_x</u>
22.5	3.7	37.0	1,800*	2.7

* Includes dust particulate emissions due to earthmoving.

When added to the ambient air quality, the gaseous emissions are not, however, expected to exceed air quality standards. The particulate level is expected to exceed the 24-hour State standards during the excavation phase of the Central Blocks.

The expected particulate problems are common for construction projects of this size, and should not be considered unique to this project. They will be substantially reduced by careful construction practices called for in the City permit specifications, such as watering down the site, but the 24-hour standard is still expected to be exceeded locally during the construction activities.

171 Refer to Appendix N₄ for a discussion of the equation and diffusion models employed; source: URS Research Co., Draft EIR, pg. V-I-8, Tables I-2 and I-3.

F. Economics and Financing

Subsequent to the preparation of the Project area under the Urban Renewal Program (e.g., relocation, clearance, site improvements, etc.), the Project land will be sold to developers at fair market value. As planned, a portion of the Central Blocks area - including the Convention Complex, Public Parking Garage, Sports Arena, and pedestrian mall, and the Central Heating and Cooling Plant in the Peripheral Blocks - is to be developed by the City and County of San Francisco. The remainder of the Central Blocks area will be completed by a private developer. The financing of Public Facilities and the land in the Central Blocks area is to be provided through an agreement between the City and the Redevelopment Agency which provides for the following elements:

- The Redevelopment Agency will issue lease revenue bonds in an amount sufficient to pay for the construction of the facilities and other development costs, including land.
- The bonds will be sold at public sale to the bidder offering to purchase the bonds at the lowest net interest cost to the Agency.
- From the proceeds of the bond sale, the Agency will reimburse the Federal Government for the reuse value of the land and the City will administer the solicitation of bids, the award of construction contracts, and the supervision of construction of the public facilities. In addition, arrangements will be made to pay other development costs from the proceeds of the bond issue.
- Utilizing a Project Lease, the Agency will lease the public sites and completed public facilities to the City at a rent sufficient to amortize the bonds and cover any additional expenses which may be incurred by the Agency.
- Using the Master Private Lease, the Agency intends to lease the private sites to the designated private developer and will make the proceeds available to the City.
- When the Agency bonds are paid off, title to the public sites and the public facilities will vest in the City.¹⁷²

¹⁷² Yerba Buena Public Facilities, submitted by Thomas Mellon, Chief Administrative Officer, to the Board of Supervisors, March 6, 1972. (Hereafter called the "Blue Book")

Development on the peripheral parcels will be financed by private developers, with the exception of the proposed housing, which is planned to be financed through hotel tax revenues and Redevelopment Agency bonds.

The following aspects of the Project are considered in an effort to determine the net economic costs and benefits:

Public Construction and Development Costs: the amount of City funds required to develop the proposed public facilities and low-income housing;

Amortization Revenues: the funds allocated by the City to amortize the public bonds; and

Economic Impact of the Project on the City: the direct and indirect costs and benefits of the completed Project.

The estimates contained here are extremely conservative and fall far below those derived in any other economic analysis of the YBC Project. Aggressive marketing of the Sports Arena and Convention Center could generate substantial revenues beyond what is projected here. This analysis should be viewed as projecting the minimum amount of revenue to be expected from the YBC project.

1. Public Construction and Development Costs

The estimated cost of the Public Facilities as contained in the presentation by the City's Chief Administrative Officer to the Board of Supervisors on March 6, 1972 (hereafter called the "Blue Book") was \$141,965,000 for construction and \$39,929,000 for other development costs. However, this estimate was based upon a construction starting date of February 15, 1973.¹⁷³ Since the sale of bonds for the Public Facilities is currently planned for the winter of 1974-75, it is unlikely that construction will actually begin prior to

¹⁷³ Op. cit. Yerba Buena Center Public Facilities.

the first quarter of 1975. Therefore, an inflation rate of 8.4%¹⁷⁴ was applied to the construction costs over the period from February 1973 to January 1974, and a rate of 12.66%¹⁷⁵ to the period from January 1974 to January 1975, to project the current cost of construction. Each of the other development costs have been assessed individually as shown on Table I. The construction costs are merely estimates and can vary upward or downward once actual construction bids are received. Therefore, they should be regarded as approximate figures only.

The size of the bond issue required will equal the cost of the Public Facilities, less accumulated hotel tax receipts which are to be used to assist in the financing of YBC; less the investment income earned during construction;¹⁷⁶ and plus the funded interest required to cover interest payments until such time as Project revenues are available to cover the cost of interest.

The total bond issue will be determined by the prevailing coupon and market interest rate at the time of bond issuance, and can vary substantially as shown on Table II. Computations of funded interest and investment income are explained in Table III.

174 This inflation prior to January 1974 rate is based upon an average of rates printed in the Engineering New Records and Turner Construction News, projected wage rates and material costs. It is not possible to predict with precision what the actual rate will be at the time of construction; thus, these figures should be considered as a rough estimate only.

175 For the period after January 1974 the Boeckh index is used through May 1974 and projected to January 1975.

176 This income is based upon a scheduled rate of disbursement; funds that are not being expended for construction costs will be invested to gain income to cover later construction costs.

TABLE I
PUBLIC FACILITIES COSTS
(in millions of dollars)

<u>Construction Costs*</u>	<u>1/73** (Start Date)</u>	<u>1/75*** (Start Date)</u>	<u>Comments</u>
Utility Relocation	\$ 5.569	\$ 3,900	Most major utility work is complete and actual costs have been substantially lower than estimates.
Exhibit Hall and Meeting Room Complex	63.596	77.528	
Sports Arena	37.908	46.212	
Parking Garage	21.429	26.124	
Central Concourse	11.046	13.466	
Central Heating and Cooling Plant	<u>2.417</u>	<u>2.946</u>	
Sub-Total	\$141.965	\$170.177	
<u>Other Development Costs</u>			
Land	\$14.000	\$14.000	Land disposition price has been concurred in by HUD The art budget will not be increased Completed activity Stipulated in contract that fees are limited to originally projected amount.
Works of Art	1.000	1.000	
Purchase of Previous Studies (completed)	.516	.516	
Architecture and Engineering	11.169	12.040	
Construction Inspection and Testing	2.800	2.800	
Financing and Legal Consultation	0.600	.600	Graduated percentage of total construction costs Stipulated in contract that fees are limited to originally projected amount. 5% of construction costs Have not hired projected number of staff Revised estimate by Blyth & Co. Revised estimate by consultant
Construction Contingency	7.098	8.508	
Administration	0.660	.660	
Insurance	0.404	.481	
Construction Consultant	<u>1.682</u>	<u>1.323</u>	
Sub-Total	\$39.929	\$41.928	
Total Costs	\$181.894	\$212.106	

* Includes furnishings and equipment

** Source: Blue Book (Funded Interest is discussed in a subsequent Table)

*** Compounded annually to January 1974 at 8.4% and from January 1974 to January 1975 at 12.66%; a contingent inflation factor was included in the City's original cost estimates, providing for an average addition of 20% of the total construction cost base; this should not change as a result of the delay.

TABLE II

Bond Issue Size - Public Facilities
(\$000)

	<u>5%</u>	<u>5.5%</u>	<u>6%</u>	<u>6.5%</u>	<u>7%</u>
Sub-total Costs	\$213,054	\$213,054	\$213,054	\$213,054	\$213,054
Less:					
Hotel Tax Receipts*	19,015	19,015	19,015	19,015	19,015
Investment Income	16,756	19,138	22,154	24,315	27,134
Sub-total	177,283	174,901	171,885	169,724	166,905
Plus:					
Funded Interest**	43,205	48,149	53,915	58,389	63,680
Total Bond Issue Size	\$220,488	\$222,659	\$226,300	\$228,113	\$230,585
Annual Amortization	\$ 13,952	\$ 14,965	\$ 16,067	\$ 17,107	\$ 18,232

* Receipts in the amount of \$11,745,000 will be available by the time the first bond issue is sold. An additional amount of approximately \$7,270,000 will be available by early 1978 to be applied against the second bond issue.

** Computed upon the estimated rate of dispersal of funds in accordance with planned contract groupings, and bond issuances.

TABLE III
ALLOCATION OF TOTAL COSTS
TO BOND ISSUES
BY CONTRACT GROUP

PART I		First Issue (000)	Second Issue (000)
Construction Cost Estimate*			
Contract Group I **	3,900		
Group II	38,393		
Group III	73,633		
Group IV	3,082		
Group V			43,165
Group VI (73%) (27%)	6,502		2,405
Construction Cost Total	125,510		45,570
Other Costs			
Land	14,000		
Art	1,000		
Previous Studies	516		
Insurance	481		
Construction Inspection & Testing	2,055		745
Financing & Legal	417		183
Administration	458		202
Construction Consultant	919		404
Construction Contingency	6,276		2,278
Architectural & Engineering	7,968		4,072
Total Other Costs	34,090		7,884
Total Costs	159,600		53,454

* Estimate Adjusted Forward to January 1975.

** Contract Groups Differ in detail from estimates of Cost of each element of the project.

PART II

	5%		5.5%		6.0%		6.5%		7.0%	
	Bond Issue #1	Bond Issue #2	Bond Issue #1	Bond Issue #2	Bond Issue #1	Bond Issue #2	Bond Issue #1	Bond Issue #2	Bond Issue #1	Bond Issue #2
Costs	159,600	53,454	159,600	53,454	159,600	53,454	159,600	53,454	159,600	53,454
less Hotel Tax to 1/75	11,745		11,745		11,745		11,745		11,745	
1/75-8/78		7,270		7,270		7,270		7,270		7,270
Investment Income @ 0.5% less than Bond rate on undisbursed funded interest		13,388		14,873		16,358		17,842		19,326
Total Cost	147,855	3,368	147,855	4,265	147,855	5,296	147,855	6,473	147,855	7,808
		29,428		27,046		24,530		21,869		19,050
Funded Interest	36,963	6,242	41,702	6,447	46,691	7,224	51,949	6,440	57,499	6,181
Bond Issue	184,818	35,670	189,557	33,493	194,546	31,754	199,804	28,309	205,354	25,231
TOTAL	220,488		222,659		226,300		228,118		230,585	
Amortization	11,695	2,257	12,718	2,247	13,254	2,254	14,984	2,123	16,237	1,995

The bonds are to be sold in two phases in approximately January 1975 and January 1977 respectively. Amortization payments will begin on the first sale in January 1979 and on the second, in July 1980. All payments will be on a level basis over a thirty-two year period, with those payments in 1979, 1980, and in the final two years of amortization being slightly less due to the overlap of the bond sales.

The bond issue currently authorized by the Board of Supervisors is \$225,000,000 at a maximum interest rate of 7%.

The housing projects resulting from the TOOR settlement are proposed to be financed by Redevelopment Agency bonds in an amount equal to approximately 8.3% of the hotel tax revenues, plus \$100,000 annually from the Publicity and Advertising fund of the Convention and Visitors Bureau, over the life of the bonds. Total construction costs will be limited to the amount of funds available. Therefore, there is not expected to be any financing demands upon the City's general fund for these housing projects.

2. Amortization Revenues

Included here are the revenues allocated and available to amortize the bond issue on an annual basis. Other economic costs and benefits, such as employment and increased sales tax revenues, are discussed in the following section. The amortization revenues include:

- Rental income from the private leases in the Central Blocks area.
- Property tax increments from the private development in the peripheral area.
- Net revenues from the Public Facilities.
- Hotel tax allocation.

The analysis of the amortization revenues is not to be considered as an analysis of the economic impact upon the City, but merely a computation of the funds available to directly amortize the Public Facility bonds.

a. Rental Income from Private Leases

The ground lease agreement with the private developer in the Central Blocks area provides for a graduated rent schedule as follows:

Table IV

Rental Income from Private Leases

	<u>Site Rents</u>	<u>Keil-Field Properties</u>	<u>Retail</u>	<u>Total</u>
FY 1974*	\$25,800	\$ 71,700	\$ 1,000	98,500
1975	91,800	71,700	1,000	164,500
1976	123,600	71,700	1,000	196,300
1977	156,500	71,700	30,100	258,300
1978	189,500	71,700	37,100	298,300
1979	244,600	71,700	44,100	360,400
1980	297,000	71,700	51,100	419,800
1981	348,600	71,700	58,100	478,400
1982	348,600	71,700	65,100	485,400

*On a fiscal year basis of July-June

Maximum rental will be reached in 1982, and continue annually thereafter. These funds have been allocated by the Board of Supervisors to assist in the annual amortization of the Public Facilities bonds.

b. Tax Increments from Peripheral Parcels

The Board of Supervisors has also authorized the use of property tax increments from the Project land to be used toward the amortization of the bonds. The increments are equal to the property tax on the difference between the 1965 assessed land valuation and the assessed land valuation in 1974 and thereafter. Since redevelopment is expected to significantly increase land values in the area, it is currently estimated that annual tax increments will be generated as in Table V.

c. Net Revenues of the Public Facilities

Numerous estimates have been made on the volume of activity projected for the Public Facilities in the Central Blocks area. These estimates have varied radically, due to the dearth of hard data available to substantiate these projections, and due also to the wide variety of assumptions which can be made.

To accurately project the actual activity in these facilities, it would be necessary to conduct an in-depth national study on the influences which effect convention and sports arena business, to establish trends for each of these influences, and then to apply these factors to San Francisco's proposed facilities. Such factors as the state of the economy; the relative desirability of San Francisco as a convention or sports center; the trends in air and automobile travel as a result of limited energy resources; and the trend on the part of conventioners nation-wide for more or less, larger or smaller conventions, all could potentially effect future convention business in San Francisco.

Adequate research in this area is not available, and it is beyond the scope of this Statement to conduct such a study. Therefore, projections included here are based primarily upon the record of past and current convention activity in San Francisco, and a balancing of available economic analyses of the Project. The projections should be considered rough indicators rather than firm predictions.

Table V

Annual Tax Increments * (in thousands)

	<u>Increase Valuation</u>	<u>Cumulative Total</u>	<u>Increase in Tax***</u>	<u>Cumulative Total</u>
FY 1977**	7,053	7,053	222	222
1978	49,111	56,164	1,498	1,720
1979	84,315	102,968	2,582	4,302
1980	96,361	236,840	2,951	7,253
1981	52,052	288,892	1,594	8,847
1982	7,517	296,409	230	9,077
1983	62,279	358,688	1,907	10,984
1984	129,355	488,043	3,961	14,946
1985	---	488,043	---	14,946
1986	51,571	539,614	1,258	16,525
1987	---	539,614	1,258	16,525
1988	---	539,614	1,258	16,525
1989	---	539,614	1,258	16,525
1990	---	539,614	1,258	16,525

* Original valuations of \$9,318,000 and tax of \$293,000 are deducted from total. Computations are of a fiscal year basis of July-June.

** Represents improvements on existing parcels from Blue Book Exhibit VI

*** Assumed tax rate of 12.59 per \$100 assessed valuation.

1. Convention Center

With respect to estimated overall business activity in the City, the Convention Center seems to be the most important of the Public Facilities. Its activities in terms of derived revenue are expected to replace those of the manufacturing industries lost over the past few decades.

The manufacturing function in a city or region can be regarded as an export industry since the products are generally sold outside the region and thus bring income from other areas. Conversely, service industries are population serving industries, or those industries which service the regional needs in distribution and marketing.¹⁷⁷

San Francisco has been steadily losing export industries over the last twenty years. It had 66,000 employed in the manufacturing section in 1958; by 1972 employment in this sector had declined to 50,800 while total civilian employment in the City had grown from 466,600 to 519,000.¹⁷⁸ To maintain its economic vitality, San Francisco needs economic activities that draw income from outside the Bay Area and the City. Successful convention activity fulfills this function.

In projecting future convention business in San Francisco, two main factors are considered:

- New convention business which would be uniquely generated by a Center of the size and design of YBC, and which would not otherwise come to San Francisco; and
- Projected overall growth of convention business which would require additional facilities beyond that already available in San Francisco.

¹⁷⁷ Bay Area Transportation Study Commission, EMPRO: BATSC Employment Projections San Francisco Bay Area: Nine Counties 1965-1990, BATSC Technical Report 218, (Berkeley: BATSC, April 1968), p. 15.

¹⁷⁸ California Department of Human Resources Development, Area Manpower Review San Francisco-Oakland SMSA Outlook and Planning Report, April 1973, pp. 76-77.

Business Unique to YBC

Business which would be generated only if YBC were constructed would be primarily dependent upon the increased size or improved facilities which are not currently available in other San Francisco facilities.

In terms of size, there are four cities nationally with greater square footage of exhibit space than YBC, and six others with facilities approaching its size. The record of past bookings for these centers shows that the major users appear to have been industrial shows and local large-scale consumer shows.

The YBC facility is not likely to attract large industrial-oriented shows other than those currently using existing facilities. These exhibits most frequently represent a regional base and are unlikely to travel great distances for exhibit shows, due to the considerable expense of drayage across county.¹⁷⁹

Large-scale consumer shows are those such as the National Sport and Boat Show which has traditionally been held at the State-owned and operated Cow Palace in Daly City.¹⁸⁰ The Cow Palace has 320,000 square feet of exhibit space and, thus, in comparison with YBC's proposed 340,000 square feet, appears adequate in size to handle shows of this type. However, this facility is generally regarded as obsolete, and it is likely that future consumer shows will be attracted to the modern facilities and more convenient location of the YBC convention complex. Although this would create a shift of revenue from State to City coffers, it is not likely to create a new or unique clientele of conventioners.

Thus, with no sound basis for projecting an increase in conventions of these types, it would appear that the only unique clientele attributable to YBC must be represented by those groups who have specifically expressed an interest in YBC exclusively. The records of the San Francisco Convention and Visitors Bureau list several

179 Madison Square Garden Corp. (MSG), Report on Yerba Buena Center Proposed Sports and Entertainment Arena and Exhibit Hall, February 19, 1970, pg. 10 also: Economic Reserach Associates (ERA), Economic Performance of Public Facilities in Yerba Buena Center, pg. III.4.

180 Op. cit. ERA Report, p. III.8.

organizations which have tentatively scheduled conventions in 1977 through 1980, but which have indicated that they will cancel if the YBC facility is not completed in time. These organizations represent an annual average of approximately five conventions, approximately 9,500 convention delegates per convention, or an average annual total of 47,500 delegates. This, then, is the estimate used as YBC's projected unique clientele. It is held constant over all years of activity, since there is insufficient data available to predict a growth rate in this category of conventions.

Growth Trend of Convention Business

In addition to the State-owned Cow Palace discussed above, San Francisco currently has 167,000 square feet of exhibit space in the Civic Auditorium and Brooks Hall structures in Civic Center which has served national conventions in the past.

The record of convention delegates to San Francisco between 1960 and 1972 (Refer to Table VI) indicates strong fluctuations both in the number of conventions in the City and the number of delegates registering for those conventions. The low point was 1960 with 294,372 delegates, and the two high points were 1968 with 527,528 delegates and 1972 with 597,700.

The growth pattern between 1960 and 1965 was fairly rapid, with a compounded rate of increase in the number of delegates of 7.16% per year. From 1967 to 1972, the growth pattern was fairly erratic, with a compounded growth of only 2.71%.

The lack of uniformity in the historical rate of convention growth over the past thirteen years makes it very difficult to use this as a valid indicator of future convention growth. In an effort to minimize the fluctuations about the genuine trend line, a least squares trend line was run through the data from 1960 to 1972. From this line, a compound growth rate in the number of delegation of 3.337% was established. Using this compounded growth rate, an average number of delegates is projected forward over the next two decades, as shown on Table VII.

As indicated by the past record of convention activity in San Francisco, it is highly unlikely that the number of delegates will grow in as orderly a fashion as depicted on Table VII. There are likely to be wide variations of as

Table VI
NUMBER OF CONVENTIONS AND DELEGATION SIZE
1960-1972

Year	Conventions		Delegates		Average Size of Convention
	Number	Annual Percentage Increase	Number	Annual Percentage Increase	
1960	397	---	294,372	--	741
1961	438	10.3%	367,258	24.7%	838
1962	450	2.7%	385,000	4.8	855
1963	530	17.7	498,000	29.3	939
1964	553	4.3	428,723	14.0	775
1965	601	8.6	411,045	4.2	683
1966	688	14.4	509,045	23.8	739
1967	684	(0.6)	514,876	1.1	752
1968	740	8.1	527,528	2.4	712
1969	675	(9.6)	463,000	(13.9)	685
1970	646	(4.2)	488,884	6.0	755
1971	NA	-	463,000	(5.3)	NA
1972	NA	-	597,700	29.1	NA

Sources: San Francisco Convention and Visitors Bureau

TABLE VII

Projected Average Delegates And Conventions

Year	Ave.	Ave. Delegates Requiring Space Outside Hotels	Ave. Conventions Requiring Space Outside Hotels**	Ave. Use - Days for Conventions***
1973	571,890	171,567	16.3	130.7
1974	590,974	177,292	16.9	135.1
1975	610,695	183,209	17.4	136.6
1976	631,074	189,322	18.0	144.2
1977	652,133	195,640	18.6	149.1
1978	673,895	202,169	19.3	154.0
1979	696,383	208,915	19.9	159.2
1980	719,621	215,886	20.6	164.5
1981	743,635	223,091	21.2	170.0
1982	768,450	230,535	22.0	175.6
1983	794,093	238,228	22.7	181.5
1984	820,592	246,178	23.4	187.6
1985	874,975	254,393	24.2	193.8
1986	876,272	262,882	25.0	200.3
1987	905,513	271,654	25.9	207.0
1988	935,730	280,719	26.7	213.9
1989	966,955	290,087	27.6	221.0
1990	999,222	299,767	28.5	228.4

*Note: In any one year the actual number may vary much as 75,000 - 100,000 delegates. These figures do not include local public shows and exhibits.

**10,500 delegates per convention; conventions using exhibit space generally have larger delegations than those using hotel space.

***Eight days per convention.

much as 75,000-100,000 delegates from year to year. For example, if an average growth or predicted path is drawn through the 1960's, the convention size in 1963 would exceed this trend line by as much as 88,402 delegates, while 1971 would fall 74,786 delegates short. Due to these significant fluctuations, Table VII should be regarded as merely an averaging of growth over time. In order to be assured that total convention demand can be consistently met, it would be necessary to adjust the predicted path upward by approximately 100,000 delegates to adjust for peak load years.

Not all of the convention delegates projected on Table VII will require exhibit hall space. Historically, those conventions needing convention space outside of their hotels have amounted to approximately 2% of the total conventions, but 30% of the total convention delegates. These percentages are applied to the projected number of delegates on Table VII, in order to estimate the amount of convention hall space which is likely to be required over the next two decades.

A certain portion of this required space can be accommodated by the existing facilities. The 1968-69 schedule of events in Civic Auditorium/Brooks Hall had the largest number of use-days in the center's history, totalling 180. Since the standard convention year is approximately 244 days from October through May, this required the hall to be in use three-fourths of the time. Even with very tight scheduling, it is difficult to expect that the complex could accommodate many, if any, more use-days than this.

Using the annual growth rate of conventions and convention delegates on Table VI as a very rough indicator, it can be projected that Brooks Hall capacity will not be consistently exceeded until approximately 1982 or 1983. However, as indicated by the experience of 1968, Brooks Hall will reach full capacity during any year which is subject to a significant upward fluctuation in the number of delegates. Therefore, additional convention and exhibit space could be needed in any year, but probably not on a consistent basis until the early 1980's.

The estimated capacity of the YBC Center is approximately 240 use-days during the typical convention year of October through May.¹⁸¹ Thus, the combined convention capacity of the Brooks Hall and YBC facilities are not likely to be exceeded on a consistent basis until some time after 1990.

On the premise that YBC will be a more attractive and prestigious center, it is expected that Brooks Hall will bear the greatest portion of the underutilization. This is significant in determining the amount of direct revenues available to amortize the bonds, although it has a balancing effect for the overall City economy.¹⁸²

Based upon the current bookings for future San Francisco conventions, it is expected that, upon completion of the YBC facility, Brooks Hall will retain approximately 40% of the conventions, attributable to average growth, until reaching full capacity. The remaining conventions, plus those unique to YBC, and the trade and consumer shows are expected to go to YBC. Based upon this estimate, it is possible, using Table VII and the predicted unique clientele to roughly project the total use-days, delegates and, therefore, direct revenues accruing to the YBC convention center.¹⁸³ Table VII projects the total YBC use-days for both conventions and public exhibits. Table VIII projects the total YBC use-days for both conventions and public exhibits.

Convention Center Revenues

Projected revenues generated by the Convention facility include (1) net operating revenue, (2) facilities use tax, and (3) possessory interest tax paid by the concessionaires.

- Net Operating Revenues

The distribution of use-days is established on the basis of one-half open days and one-half set-up days. The use-days are estimated at one-third full hall and two-thirds half hall. Rents are estimated at \$6,000 for full hall and \$3,000 for half hall. Set-up rates are one-half the open rates.

¹⁸¹ Op. cit., ADL, EIR, Table A-46, V-A-86.

¹⁸² The effect of "marginal delegates" on the City's overall economy is discussed below.

¹⁸³ The economic loss to Brooks Hall is computed in the following section to determine the overall economic impact upon the City.

TABLE VIII

Allocation of Convention Center Usage
In San Francisco 1976-1990

	Av. Est. National Conventions thru normal growth	Use* Days	YBC Use Days	YBC Unique Usage	Public Shows Use Days**	Total YBC Use Days
1978	19.3	154	92	40	76	208
1979	19.9	159	95	40	76	211
1980	20.6	165	99	40	76	215
1981	21.2	170	102	40	76	218
1982	22.0	176	105	40	76	221
1983	22.7	182	109	40	76	225
1984	23.4	188	113	40	76	229
1985	24.2	194	116	40	76	232
1986	25.0	200	120	40	76	236
1987	25.9	207	124	40	76	240
1988	26.7	214	128	40	76	244
1989	27.6	221	133	40	76	249
1990	28.5	228	137	40	76	253

* Estimated at eight use days per convention.

** Estimates based upon ERA Report Table 13 III-30. These include local public shows which are often held during the off-season and do not significantly add to San Francisco's national delegate total.

In Table IX, rental rates have been held constant since it is not possible to predict at this time what YBC's competitive position will be nationally and thus to what extent rents could be raised. However, costs of operating the facility are escalated at approximately 4% per year. On this basis, as shown on Table IX, net revenues would actually decline over subsequent years. Although, an increase in rental rates is highly likely at intervals over the next two decades, the City may choose to keep rates extremely low to the point of suffering an operating loss on the facility, in exchange for a highly favorable competitive position for attracting national delegates.

- Possessory Interest Tax

Possessory interest tax will be charged on approximately 1310 restaurant and bar seats in the Convention Center. The tax is based upon the capitalized value of the rental of each contract life of approximately two and one-half years. The capitalized value is based upon concession sales of approximately \$.75 per delegate per day in 1970 dollars, assessed at the standard 25% ratio and taxed at 12.59 per one-hundred assessed value. Estimated income from possessory interest tax is projected on Table X.

- Facilities Use Tax

A new facilities use tax of 10% of the ticket price will be charged at all public events in the YBC Center. It is estimated that there will be an average of 38 open use-days for trade and consumer shows with an average attendance of approximately 8,000 per day. The estimated ticket price is \$4.50 in 1970 dollars, projected forwarded at 4% per annum.

- Sports Arena

The Sports Arena in YBC will have 14,500 permanent seats and 5,000 temporary seats for a total of 19,500. Although new sports teams are coming on the market, there are not yet any assurances that these new teams will use the YBC facility. Therefore, at this time, the viability of the Arena must be predicated upon its ability to attract events from existing facilities, including the Civic Center Auditorium, the Cow Palace and the Oakland Coliseum.

TABLE IX

Projected Convention Center Net Rental Income

	(1) Fixed* Expenses Per Day	(2) Variable* Expenses	(3) Estimated** Open Days	(4) Total*** Variable Expenses $\frac{(2) \times (3)}{(1)}$	(5) Total Expenses $\frac{(1) + (4)}{(1)}$	(6) Estimated Revenues	(7) Net Operating Revenue $\frac{(6) - (5)}{(1)}$
FY 1978****	\$358,154	\$1,162	104	\$120,848	\$479,000	\$624,000	\$145,000
79	372,480	1,209	105	126,945	499,000	630,000	131,000
80	387,379	1,257	108	135,756	523,000	648,000	125,000
81	402,874	1,307	109	142,463	545,000	654,000	109,000
82	418,989	1,360	111	150,960	570,000	666,000	96,000
83	435,748	1,414	113	159,782	596,000	678,000	82,000
84	453,178	1,471	115	169,165	622,000	690,000	68,000
85	471,306	1,530	116	177,480	649,000	696,000	47,000
86	490,159	1,591	118	187,738	678,000	708,000	30,000
87	509,765	1,655	120	198,600	708,000	720,000	12,000
88	530,156	1,721	122	209,962	740,000	732,000	(8,000)
89	551,362	1,790	125	223,750	775,000	750,000	(25,000)
90	573,416	1,862	127	236,474	810,000	762,000	(48,000)

* Source ERA Report p III 46 with one-half of fixed expenses allocated to Convention Center carried forward from 1970 @ 4%.

** Variable expenses apply to open days only.

*** Estimated at one-third full hall and two-thirds half hall usage with 50% open days and 50% set-up with rates at \$6,000 per open day full hall and \$3,000 for half hall with set-up days at \$3,000 and \$1,500 respectively.

****Computed on a fiscal year basis of July-June.

TABLE X

Projected Total Net
Convention Center Revenues

	<u>Rental</u>	<u>Possessory Interest Tax</u>	<u>Facilities Use Tax</u>	<u>Total</u>
FY				
1978*	\$145,000	\$34,700	\$152,600	\$332,300
1979	131,000	36,000	158,700	325,700
1980	125,000	37,500	165,000	327,500
1981	109,000	39,000	171,700	319,700
1982	96,000	40,600	178,500	315,100
1983	82,000	42,200	185,700	309,900
1984	68,000	43,900	193,100	305,000
1985	47,000	45,700	200,800	293,500
1986	30,000	47,400	208,800	286,200
1987	12,000	49,400	217,200	278,600
1988	(8,000)	51,300	225,900	269,200
1989	(25,000)	53,400	234,900	263,300
1990	(48,000)	55,600	244,300	251,900

* Computed on a fiscal year of July-June.

It is reasonable to expect that events previously scheduled for the Cow Palace and Civic Center Auditorium will be attracted to the new facility due to the inadequacy of the former facilities. There do not appear to be any assurances, however, that events in Oakland will transfer to the YBC Arena. Due to the uncertainty of the Arena's clientele, it is difficult to project direct revenues with any precision.

Because of the uncertainty of the sports teams making an acceptable agreement with the management of the Arena coupled with the teams' ability to negotiate with San Francisco and Oakland for the most satisfactory deal, the estimated benefits of the 80 use days by these sports teams has been eliminated in this analysis.

The direct revenues associated with the Sports Arena which will be available to amortize the bonds are (1) the net operating revenue; (2) the facilities use tax; (3) the possessory interest tax from the concessionaires; and (4) receipts from television and advertising.

The estimates of the gate receipts are based upon the average ticket price for sports arena events in 1970 of \$4.50,¹⁸⁴ inflated forward at 4% per year. Rental for the Arena is planned at 10% of ticket sales.

The facilities use tax is to be 10% or \$.50 of every ticket sold, whichever is greater. Since it is estimated that, by the time the Arena is completed in 1978, the estimated average ticket price will have escalated above \$5.00, the facilities use tax is estimated at 10% of the projected average ticket price. The

184 Development Research Associates (DRA), Transient Housing Study, July 1971, pg. III.43, Table 19.

Table XI
Estimated Annual Operating Income
Of YBC Arena

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Estimated Gate Receipts**	Rental and Facilities Use Tax***	Possessory Interest Tax	Concession Income	Gross Revenues (2+2+4)	Fixed Expenses	Variable Expenses	Gross Expenses (6+7)	Net Revenue (5-8)
FY1979	3,587	717	3	120	840	372	120	492	342
1980	3,730	746	3	124	874	387	124	511	362
1981	3,879	776	3	129	909	403	129	532	377
1982	4,035	807	3	134	945	419	134	553	392
1983	4,196	839	3	140	983	436	140	576	407
1984	4,364	873	3	145	1,022	453	145	598	424
1985	4,538	908	4	151	1,063	471	471	151	441
1986	4,720	944	4	157	1,105	490	157	647	458
1987	4,909	982	4	164	1,150	510	164	674	476
1988	5,105	1,021	4	170	1,196	530	170	700	496
1989	5,309	1,062	4	177	1,243	551	177	728	515
1990	5,522	1,104	4	184	1,293	573	184	757	536

* Estimated without Hockey and Basketball games and no replacement

** All amounts -- plus (000)

*** Each 10% of gate receipts, for a total of 20%

possessory interest tax estimate was made using the capitalization method explained in the earlier section of the Convention Center. In the case of the Arena, the concessions are currently considered the only source for these tax revenues since no assurances have yet been received from the basketball and hockey teams.

Fixed expenses are represented by the Arena's share of the combined fixed expenses of the Arena and Convention Center which assumes that they will be under combined management. Variable expenses are expected to be \$1,200 per event in 1970 dollars.¹⁸⁵ The estimates of net revenue are generated from the difference between gross income and expenses.

Table XI shows the direct revenues attributable to the Sports Arena, which will be available to amortize the Public Facilities bonds.

The Parking Garage

The Parking Garage located beneath the Central Section of YBC will contain 1,800 parking stalls. 370 of these will be monthly parking stalls renting at \$45.00 per month in 1970 dollars while the balance will rent at \$.35 per hour. The rate for event parking has been set at \$1.20 per event in 1970 dollars. These costs are inflated forward at 4% per year, amounting to \$59.11, \$0.46, and \$1.58 respectively, by 1977, when the garage is to be completed.

It is expected that, with the reduction of overall parking spaces in the area and the substantial increase of employment and other activities, there will be an active demand for the spaces provided in the Public Parking garage.¹⁸⁶

185 Op. cit., ADL, EIR, p. V-C-15.

186 Refer to Section IV.D. of the Statement for an analysis of the automobile traffic in YBC.

Traffic estimates project that approximately 66% of the off-street parking spaces in the Project area will be used by all-day parkers. However, the percentage of all-day parkers using the public garage are expected to be slightly less, since it is the policy of the City to place hourly rates sufficiently high to discourage all-day commuters from using the facility. Nevertheless, the demands for parking (according to the projected modal split) will be sufficiently high that it is still likely that a majority of the spaces in the public garage (approximately 55%) will still be used by commuters. The remainder will be used during the day by transient visitors to the retail stores, apparel mart, hotel, convention center, and office buildings. Since 80% occupancy is the maximum practical capacity of a parking garage, due to the rate of turnover, it is projected that the facility will have the following capacity over an eight hour day:

Monthly parking	370 (plus 10% over-rent)
Other commuters	620
Transient users	
(net over all 8 hrs)187	<u>450</u>
 TOTAL	 1440

Evening and weekend parking is estimated on the basis of projected use-days and average attendance of the Sports Arena, Theater, and Convention Center public exhibits.¹⁸⁸

Table XII compares the revenues and expenses of the public parking garage in determining the garage's direct net revenues. Parking taxes on these and other proposed parking spaces are not computed since they will merely replace the parking tax revenues currently generated in the Project area.

187 Although there will be considerably more than 450 transient autos entering and exiting the garage during any eight-hour period, the net result is expected to be equal to 450 full-time parking spaces.

188 These estimates are substantially lower than those used in the Traffic, Noise and Air Quality sections, which assumed simultaneous use of all facilities on a daily basis, in order to determine worst case conditions.

TABLE XII

Parking Garage
Estimated Annual Net Revenues

FY	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	
	Monthly Parking	\$ 300,900	312,832	325,345	338,359	351,893	365,969	380,608	395,832	411,665	428,132	445,257	463,067	481,590
	Other Commuters	\$ 593,092	616,816	641,488	667,148	693,834	721,587	750,451	780,469	811,687	844,155	877,921	913,038	949,559
	Transient Users	\$ 430,560	447,782	465,694	484,321	503,694	523,842	544,796	566,588	589,251	612,821	637,334	662,827	689,340
	Event Parking	\$ 182,289	189,581	197,164	205,051	213,253	221,783	230,654	239,880	249,476	259,455	269,833	280,626	291,851
	Gross Revenues	\$ 1,506,841	1,567,114	1,629,799	1,694,991	1,762,790	1,833,302	1,906,634	1,982,899	2,062,215	2,144,704	2,230,492	2,319,712	2,412,500
	Total Expenses	\$ 549,401	571,377	594,232	618,001	642,721	668,430	695,167	722,974	751,893	781,969	813,248	845,778	879,609
	Net Revenues	\$ 957,440	995,737	1,035,567	1,076,989	1,120,069	1,164,872	1,211,467	1,259,925	1,310,322	1,362,735	1,417,245	1,473,934	1,532,892

d. Hotel Tax

A substantial increase in hotel space has taken place in the City since 1960. Prior to 1959, there were 5,181 Class 1 hotel rooms in San Francisco. Between 1959 and 1972, 7,000 new hotel rooms were completed, and it is projected that from 1973 through 1976 an additional 2,752 rooms will be constructed. This means that there will be a total of 14,933 Class 1 rooms in San Francisco by the end of 1976, or a total of 5,450,545 use-days per year.

In 1970 there were approximately 6,000 hotel rooms in the City rated Class 2 and below. It is not expected that rooms in these classes will substantially increase in the coming years. This total supply of hotels and motels could then accommodate 7,640,545 use-days per year by 1976. If we project the growth rate of visitors forward from the estimate of the San Francisco Convention and Visitor Study¹⁸⁹ for 1970 at 3.337% per year growth, there will be an estimated 1,962,978 visitors using hotel space in 1977. If the average stay of 4.09 days per visitor is maintained, 8,028,580 use-days will be generated. Thus, it is anticipated that adequate demand will exist for the available space.

The annual room tax on hotels is currently set at 6%; approximately one-third of this tax has been allocated to assist in retiring the Public Facilities bonds.¹⁹⁰ Projections of hotel tax revenues available to amortize the bonds have been prepared by the City Controller. These are based upon level income for two years, followed by an annual increase of approximately 2%, with a one-time increase of 15% upon completion of the new convention facilities, as shown on Table XIII.

189 Herbert H. Oestreich, Ph.D., and Dirk J. Wassenaar, Ph.D., San Francisco Convention and Visitor Study Parts 1 & 2, Institute for Business and Economic Research, School of Business, San Jose State College, San Jose, California, May 1971 (Part I), and August 1972 (Part 2).

190 The hotel tax has been increased in recent years for the sole purpose of assisting with YBC financing.

TABLE XIII
Project Hotel Tax Revenues
for YBC Bonds

<u>Year*</u>	<u>Annual Revenues</u>
FY 1975	\$ 1,998,100
1976	1,998,100
1977	2,038,062
1978	2,078,823
1979	2,390,647
1980	2,438,459
1981	2,487,228
1982	2,536,973
1983	2,587,712
1984	2,639,466
1985	2,692,256
1986**	2,746,101
1987	2,801,023
1988	2,857,044
1989	2,914,184
1990	2,972,468

* Fiscal year from July 1 to June 30.

** The years 1986 to 1990 have been added to Controller's projections, based upon the same annual increase of 2%.

TABLE XIV
(in thousands)

SUMMARY OF AMORTIZATION REVENUES

	<u>Private Leases</u>	<u>Tax Increments</u>	<u>Convention Center</u>	<u>Sports Arena</u>	<u>Parking Garage</u>	<u>Hotel Tax</u>	<u>TOTAL</u>
FY 1979	1,376 **	4,302 ***	326	342 *****	957 *****	2,391	9,694
1980	420	7,253	328	363	996	2,438	11,798
1981	478	8,847	320	377	1,036	2,487	13,545
1982	485	9,077	315	392	1,077	2,537	13,883
1983	485	10,984	310	407	1,120	2,588	15,894
1984	485	14,946	305	424	1,165	2,639	19,964
1985	485	14,946	294	441	1,211	2,692	20,069
1986	485	16,525	286	458	1,260	2,746	21,760
1987	485	16,525	279	476	1,310	2,801	21,876
1988	485	16,525	269	496	1,363	2,857	21,995
1989	485	16,525	263	515	1,417	2,914	22,119
1990	485	16,525	252	536	1,474	2,972	22,244

** Accrued from July 1974.

*** 1979 figures includes improvements from 1977 & 1978.

**** Computed for three quarters of the fiscal year only.

***** Accrued from June 1977.

TABLE XV
Summary of Amortization of Bonds
(In Millions)

	<u>Amortization Revenue*</u>	<u>Amortization Cost @ 5%**</u>	<u>Net @ 5%</u>	<u>Amortization Cost @ 7%</u>	<u>Net @ 7%**</u>
1979	9,694	11,695	(2,001)	16,237	(6,533)
1980	11,798	13,952	(2,154)	18,232	(6,434)
1981	13,545	13,952	(407)	18,232	(4,687)
1982	13,883	13,952	(69)	18,232	(4,349)
1983	15,894	13,952	1,942	18,232	(2,338)
1984	19,964	13,952	6,012	18,232	1,732
1985	20,069	13,952	6,117	18,232	1,837
1986	21,760	13,952	7,808	18,232	3,528
1987	21,876	13,952	7,924	18,232	3,644
1988	21,995	13,952	8,043	18,232	3,763
1989	22,119	13,952	8,167	18,232	3,887
1990	22,244	13,952	8,292	18,232	4,012

* From Table XIV

** From Table III

e. Summary of Amortization Revenues

The total anticipated revenues which will be available to amortize the bonds beginning in January 1979 are summarized on Table XIV, and compared with the anticipated amortization costs on Table XV. As shown on these Tables, it is expected that other resources will be required in the early amortization years to assist in making annual payments. By 1984, there will be an excess of direct revenues which can be deposited into the City's general fund.

3. Economic Impact on the City

Since all of the revenues listed in the previous section are to be used to amortize the bonds for the construction of the Public Facilities, those which without YBC, would have otherwise been available for deposit in the general fund must be considered as an annual economic loss to the City, as follows:¹⁹¹

- Annual property taxes previously available on land to be converted to public use, assessed at approximately \$2,000,000.
- Revenue going to YBC which would normally have gone to Civic Auditorium and Brooks Hall.

It is estimated that the annual impact upon the City's general fund from these sources will be as shown in Table XV.

To determine the net economic impact upon the City, it is also necessary to analyze the indirect economic effects of the proposed Project which will not be consumed in amortizing the bonds, and then to weigh these against the above economic impact.

a. Marginal Delegate Expenditures

Based upon the total projected delegates shown in Table VII, it is possible to project the number of convention delegates that are directly attributable to YBC. These include those which would come to San Francisco only if YBC were constructed, and those which cannot be accommodated in existing facilities. Table XVII projects the marginal delegates attributable to YBC over the next two decades.

¹⁹¹ Although it can be argued that all of the projected office space would have been built elsewhere in the City and, thus, total property tax should be deducted, this is not a proven projection. In addition, office space in YBC is considered as a "new activity" in the City in terms of environmental impacts, and therefore will be considered as such here.

Table XVI

Initial Loss To General Fund

	<u>Property Tax</u>	<u>Brooks Hall</u>	<u>Gross Loss</u>
1978	251,800	174,000	425,800
1979	251,800	180,000	431,800
1980	251,800	187,000	438,800
1981	251,800	192,000	443,800
1982	251,800	198,000	449,800
1983	251,800	201,000	452,800
1984	251,800	193,500*	445,300
1985	251,800	187,500	439,300
1986	251,800	180,000	431,800
1987	251,800	174,000	425,800
1988	251,800	166,500	418,300
1989	251,800	160,500	412,300
1990	251,800	153,000	404,800

* In 1984 the loss to Brooks Hall begins to decline as total number of delegates further exceeds Brooks Hall's capacity.

Table XVII

Marginal YBC Delegates

	<u>Brooks Hall Overflow*</u>	<u>YBC Unique Clientele**</u>	<u>Total Marginal Delegates</u>
1978	-0-	47,500	47,500
1979	-0-	47,500	47,500
1980	-0-	47,500	47,500
1981	-0-	47,500	47,500
1982	-0-	47,500	47,500
1983	1,969	47,500	49,469
1984	9,975	47,500	57,475
1985	18,113	47,500	65,613
1986	26,644	47,500	75,144
1987	35,438	47,500	82,938
1988	44,494	47,500	91,994
1989	53,813	47,500	101,313
1990	63,525	47,500	111,025

* This indicates the number of delegates projected in the average growth trend which could not be accommodated by Brooks Hall. In certain years when the total number of delegates fluctuates substantially upward, there could be a need for the YBC facility to handle Brooks Hall overflow, even though the average use-days are below Brooks Hall capacity. However, these times and number of delegates are impossible to predict.

** An average of 5 conventions per year, with an average of 9,500 delegates each.

The expenditures of these delegates during their stays in San Francisco can be considered as a positive economic impact attributable to the YBC Project. These expenditures will be primarily for hotel rooms, retail purchasers, and restaurant meals.

1. Hotel Expenditures

Estimates of hotel expenditures by marginal delegates is based upon the following factors:

- 80% of national convention delegates stay in local hotels;
- the average party size per delegate is 1.58 persons using 1.112 rooms per party;
- the average stay is 5.28 days and 4.92 nights;
- the average expenditure per room is \$24.65 in 1970 dollars, inflated forward at 4% per annum.

The annual revenues are taxed by the City at 6%. Further, an additional amount of revenue can be attributed to increased property taxes for those hotel rooms which will serve the marginal delegates generated by YBC.

Property tax receipts are based upon the number of hotel rooms supported by YBC marginal delegates. Supportable rooms are determined by the average daily rooms sold to these delegates. Since a 75% occupancy factor in hotels is commonly regarded as an acceptable rate, the daily rooms sold to delegates are considered to represent 75% of the rooms supported. A total value is applied to each supportable room assessed at 25% and taxed at a rate of \$12.59 per hundred dollars valuation. It is estimated that the average assessed value per room is approximately \$8,272.¹⁹²

Table XVIII projects the estimated net revenues to the City as the result of marginal delegates' hotel expenditures. This includes room tax at 6%, less that portion which will be used to amortize the Public Facilities bonds, for a net tax of approximately 4%, plus the estimated property tax receipts, to determine the net benefit to the City.

¹⁹² Op. cit., A.D. Little, EIR, p. V-C-26, Table C-12.

Table XVIII

Estimated Hotel Room Revenues
from Marginal Delegates

	(1) Ave. Marginal Delegates	(2) # Delegates Using Hotel Rooms*	(3) # Rooms Sold**	(4) Total Use-Days***	(5) Annual Revenues****
1978	47,500	38,000	42,256	207,900	7,016,625
1979	47,500	38,000	42,256	207,900	7,297,290
1980	47,500	38,000	42,256	207,900	7,588,350
1981	47,500	38,000	42,256	207,900	7,891,884
1982	47,500	38,000	42,256	207,900	8,207,892
1983	49,469	39,575	44,007	216,514	8,890,065
1984	57,475	45,980	51,130	251,560	10,741,612
1985	65,613	52,490	58,369	287,175	12,753,441
1986	74,144	59,315	65,958	324,513	14,989,255
1987	82,938	66,350	73,781	363,003	17,438,664
1988	91,994	73,595	81,838	402,643	20,116,044
1989	101,313	81,050	90,128	443,430	23,040,622
1990	111,025	89,000	98,968	486,923	26,313,318

* 80% of total.

** 1.56 persons per delegate party, using 1.112 rooms per party.

*** 4.92 nights per room.

**** \$24.65 per room, inflated forward from 1970 at 4% per annum.

TABLE XVIII (cont'd)
City Revenues From Marginal Delegate Hotel Expenditures*

	(1) Hotel Revenues	(2) Hotel Tax**	(3) Average Daily Rooms Sold***	(4) Supportable Rooms	(5) Property Tax Receipts****	(6) Net City Revenue (2+5)
1978	\$7,016,625	\$280,665	115	153	\$159,341	\$440,006
1979	7,297,290	291,892	115	153	159,341	451,233
1980	7,588,350	303,534	115	153	159,341	462,875
1981	7,891,884	315,675	115	153	159,341	475,016
1982	8,207,892	328,316	115	153	159,341	487,657
1983	8,890,065	355,603	121	161	167,673	523,276
1984	10,741,612	429,664	140	187	194,750	624,414
1985	12,753,441	510,138	144	192	199,957	710,095
1986	14,989,255	599,570	163	217	225,994	825,564
1987	17,438,664	697,547	182	243	253,071	950,618
1988	20,116,044	804,642	202	269	280,149	1,084,791
1989	23,040,622	921,625	247	329	342,635	1,264,260
1990	26,313,318	1,052,533	271	361	375,962	1,428,495

* Does not include peak years when additional marginal delegates would be accommodated.

** At 4% to delete portion being used to amortize the bonds.

*** Taken from Column 3 of Table XVII, divided by 365. Equal to 75% of Column 3 of this table.

**** Supportable rooms $X \$8,272 \div 100 X 12.59$.

Retail Trade

There will be approximately 460,205 square feet of retail space included in the YBC project area. As shown in Table XIX, the growth in retail sales in San Francisco has averaged only 3.2% over the past six years, and retail employment has been declining over the past three years.

Therefore, the YBC retail space is not, in and of itself, expected to generate additional demand or revenue, without detracting from existing facilities in the downtown area.

However, an overall City increase in retail trade can be expected from the additional convention delegates which are attributable to YBC, or the marginal delegates.

The average retail expenditure per national convention delegate in 1970 was \$51.87, slightly above that spent by the average visitor. Taking the projected marginal increase in delegates attributable to YBC Convention Center, the net impact on the City can be projected on an annual basis.¹⁹⁴

Restaurant Industry

The impact on the restaurant industry is estimated by methods similar to those used earlier to assess the impact on the hotel industry. The factors used are the following: ¹⁹⁵

- 1.56 persons per delegate party
- 5.28 days is the average stay
- 2.5 meals is the estimated average per day
- \$100.15 in 1970 dollars was the average restaurant expenditure per delegate stay, or an average of \$4.86 per person per meal, inflated forward at 4% per annum.

¹⁹³ Op. cit., Herbert H. Oestreich, Part 2, pp. 63-70.

¹⁹⁴ This does not include supportable square footage of retail space, but rather tax only. It is expected that the retail business generated by marginal delegates will also boost the property tax accruing from retail property to a certain degree.

¹⁹⁵ Op. cit., Herbert H. Oestreich, Part 2, pp. 63-70.

Table XIX
Past Retail Sales

<u>Year</u>	<u>Retail Sales</u>	<u>% Change</u>	<u>Retail Employment</u>	<u>% Change</u>
1966	\$1,239,980	N.A.	55,300	N.A.
1967	1,273,603	2.7%	55,500	.36%
1968	1,360,579	6.8%	56,100	1.1%
1969	1,397,430	2.7%	59,300	5.7%
1970	1,382,457	1.1%	56,800	(4.2%)
1971	1,422,409	2.9%	54,800	(8.1%)
1972	N.A.		54,000	(3.7%)

Source: California Statistical Abstract, 1969 and 1972; Area Manpower Review San Francisco-Oakland SMSA Annual Outlook and Planning Report 1973, Department of Human Resources Development, April 1973.

TABLE XX
Marginal Delegates - Retail Expenditures

<u>Year</u>	<u>Marginal Delegates</u>	<u>Adjusted Expenditures*</u>	<u>Estimated Total Sales</u>	<u>Retail Tax to City**</u>
1978	47,500	\$ 70.97	\$ 3,371,075	\$ 33,710
1979	47,500	73.81	3,505,975	35,059
1980	47,500	76.76	3,646,100	36,461
1981	47,500	79.83	3,791,925	37,919
1982	47,500	83.02	3,943,450	39,434
1983	49,469	86.34	4,271,153	42,711
1984	57,475	89.79	5,160,680	51,606
1985	65,613	93.38	6,126,942	61,269
1986	74,144	97.12	7,200,865	72,008
1987	82,938	101.00	8,376,738	83,767
1988	91,994	105.04	9,663,050	96,630
1989	101,313	109.24	11,067,432	110,674
1990	111,025	113.61	12,613,550	126,135

*Inflated at 4% per annum.

**1% of all sales.

Table XXI projects the total restaurant expenditures by marginal convention delegates. Sales tax accruals to the City are 1% of all sales.

b. Sports Arena Spectators

Hotel Expenditures

It has been estimated that 1% of all persons attending events at the YBC Sports Arena will stay in local hotels.¹⁹⁶ Estimating that one-half of these persons will stay alone and the balance will double up, it is possible to project the room-days demanded by this group. The average expenditure per room is approximately \$20.49 in 1970 dollars. This is somewhat less than the average expenditure per national delegates, since it is anticipated that fewer sports spectators will stay in first class hotels.

Using the same method as used for marginal delegates, Table XXII projects the hotel tax revenue attributable to sports spectators. Again, the hotel room tax is computed at 4% rather than 6%, in order to delete that portion allocated to amortize the Public Facilities bonds.

Restaurant Expenditures

It is further estimated that 15% of those attending events at the Sports Arena will eat dinner in San Francisco restaurants, paying an average of \$6.25 per meal in 1970 dollars, inflated forward at 4% per annum. This expenditure is projected on Table XXIII, to determine the gross receipts tax to the City.

c. Non-cash Credits

As discussed in Section II, local governments are required to match federal funds on a one-third/two-thirds basis in order to be eligible for a Loan and Grant contract. The local share may be contributed as cash, or in the form of non-cash contributions such as site improvements or public facilities. The contributions of one project may be attributed to another, in instances where one has a surplus. Non-cash contributions are credited on a percentage basis in accordance with HUD Urban Renewal regulations, and the particular nature of the contribution.

¹⁹⁶ Op. cit., ADL, EIR, p. V-A-98, Table A-58.

Table XXI

Estimated Restaurant Sales
Marginal Delegates

	<u>Ave. Marginal Delegates</u>	<u>Adjusted Expenditure*</u>	<u>Total Sales</u>	<u>Sales Tax to City**</u>
1978	47,500	\$ 137.06	\$ 6,510,350	\$ 65,103
1979	47,500	142.54	6,770,650	67,706
1980	47,500	148.25	7,041,875	70,418
1981	47,500	154.18	7,323,550	73,235
1982	47,500	160.34	7,616,150	76,161
1983	49,469	166.76	8,249,450	82,494
1984	57,475	173.43	9,967,889	99,678
1985	65,613	180.36	11,833,960	118,339
1986	74,144	187.58	13,907,931	139,079
1987	82,938	195.08	16,179,545	161,795
1988	91,994	202.89	18,664,662	186,646
1989	101,313	211.00	21,377,043	213,770
1990	111,025	219.44	24,363,326	243,633

* Inflated at 4% per annum.

** 1% of all sales.

TABLE XXII
IMPACT OF SPORTS ARENA
ON HOTEL TAX & PROPERTY TAX REVENUES

(1) Annual Attendance*	(2) Estimated Number Staying In Hotels**	(3) Annual Room Days Sold***	(4) Annual Room Revenues****	(5) Supportable Rooms	(6) Property Tax Revenues	(7) Hotel Tax Revenues*****	(8)	
							Revenue to City (6+7)	
1979	560,000	5,600	4,200	\$122,487	12	\$ 7,884	\$4,899	\$12,733
1980	560,000	5,600	4,200	127,386	12	7,884	5,095	12,979
1981	560,000	5,600	7,031	132,482	12	7,884	5,299	13,183
1982	560,000	5,600	7,031	137,781	12	7,884	5,511	13,395
1983	560,000	5,600	7,031	143,292	12	7,884	5,731	13,615
1984	560,000	5,600	7,031	149,024	12	7,884	5,960	13,844
1985	560,000	5,600	7,031	154,985	12	7,884	6,199	14,083
1986	560,000	5,600	7,031	161,185	12	7,884	6,447	14,331
1987	560,000	5,600	7,031	167,632	12	7,884	6,705	14,589
1988	560,000	5,600	7,031	174,337	12	7,884	6,973	14,887
1989	560,000	5,600	7,031	181,311	12	7,884	7,252	15,136
1990	560,000	5,600	4,200	188,563	12	7,884	7,542	15,426

* Ave. annual attendance is computed on the basis of 8,000 spectators for 70 events.

** 1% of total

*** Based upon 50% staying alone, and 50% doubling up.

**** \$20.49, inflated forward at 4% per annum from 1970.

***** Computed at 4% to delete the portion used to amortize the bonds.

TABLE XXIII

Arena Spectators - Restaurant Expenditures

	<u>Annual Attendance</u>	<u>Meal Expenditures*</u>	<u>Tax to City</u>
1979	560,000	\$ 747,000	\$ 7,470
1980	560,000	770,000	7,700
1981	560,000	808,000	8,080
1982	560,000	841,000	8,410
1983	560,000	874,000	8,740
1984	560,000	909,000	9,090
1985	560,000	945,000	9,450
1986	560,000	983,000	9,830
1987	560,000	1,023,000	10,230
1988	560,000	1,064,000	10,640
1989	560,000	1,106,000	11,060
1990	560,000	1,150,000	11,500

* 15% of all attendance @ \$6.25 per meal in 1970 dollars
inflated forward at 4% per annum.

Based upon all outstanding Urban Renewal Loan and Grant Contracts in San Francisco, the City "owes" the Federal Government a total of approximately \$86,500,000 as its local share. Of this total amount, approximately \$49,600,000 has already been provided or allocated by projects other than YBC, and approximately \$8,200,000 is to be provided as credits for the BART stations serving YBC. The balance is to be supplied through credits for the Central Concourse, Parking Garage and Exhibit Hall in YBC. Although the amount of eligible credits from the YBC Public Facilities is expected to exceed the amount required, only the amount required, or approximately¹⁹⁷ \$28,700,000 is considered here as a positive economic benefit.

Without these non-cash credits, the City would be required to provide an equal cash amount or other public improvements to repay the Federal Government. Therefore, the YBC contribution is considered to have an economic benefit to the City.

In amortizing the value of these non-cash credits, it is assumed that they are worth what it would have taken to finance the local share of \$28,000,000 in the same fashion as the construction costs; that is, at 6% over 35 years. The annual net economic benefit to the City from non-cash credits is then estimated at approximately \$1,968,070.

d. Employment

On-Site

Total on-site YBC employment is expected to be approximately 35,484, computed as shown in Table XXIV.

It is estimated that a maximum of 26% or 9,226 of these jobs will go to San Francisco residents.¹⁹⁸

These statistics represent the Project at full employment. For the purpose of assessing the worst case environmental impacts of the proposed Project, it was assumed that these represented new jobs and new commuters to the City. However, in reality, it is likely that a portion of this employment population will represent a shift from

¹⁹⁷ Total projected credits equal approximately \$54,300,000.

¹⁹⁸ Refer to Section IV.E.1 "Traffic" for a discussion of future San Francisco employment.

Table XXIV
Projected On-Site Employment

<u>Source</u>	<u>Employees</u>
Office Space - 6,556,200 sq. ft. @200 sq. ft./employee =	32,781
Apparel Mart - 1,086,000 sq. ft. @1,000 sq. ft/employee =	1,086
Retail Space - 343,000 sq. ft. @800 sq. ft./employee =	429
On-site Hotel - 700 rooms @.7 employees/room =	490
Exhibit Hall*	281
Parking Garage =	46
Sports Arena =	131
Heating Plant =	6
Concourse =	5
Salvation Army Community Center =	20
Community College (staff and retail space) =	<u>209</u>
 TOTAL	 35,484

* Source: ADL, EIR, for estimates of public facilities employment

existing facilities in the City, or employment which would be provided through the natural growth of office and retail space elsewhere. However, as discussed previously, to ignore this employment population as an economic benefit to the City would also necessitate ignoring it as a potential negative environmental impact. Most likely, the balance of the two falls some place in between the maximum estimates provided in this Statement.

Off-Site

Some off-site employment in the hotel, restaurant and retail industries can be attributed to the business generated by marginal delegates and Arena spectators. On the basis of .7 employees per supportable hotel room, 1 employee per 100 meals sold, and 1 employee per 800 square feet of supportable retail space, it can be estimated that approximately 1,000 off-site job opportunities are generated by YBC convention and sports business in the early years of the project, and that the number accelerates thereafter.¹⁹⁹

These employees are then supported by revenues exported from outside the region, which have a multiplier effect as the income is reused locally. This income is not incorporated into the summary of economic cost and benefits to the City, because it is extremely difficult to trace and account for it accurately. However, it can have an important impact upon the local economy.

Construction Employment

An analysis of the construction employment generated by YBC was prepared by the Arthur D. Little Company in the Draft Environmental Impact Report,²⁰⁰ including both on-site employment and off-site materials fabrication employment. The basic factors used in computing gross construction employment were the following:

- 52.5% of total construction costs involves on-site labor costs;
- \$12,676 was the average labor cost per on-site worker in 1971, inflated forward at 8% per annum;
- construction materials comprise approximately 10% metropolitan area labor content; and
- \$11,980 was the average labor cost per off-site worker in 1971.

¹⁹⁹ Refer to Tables XVIII, XX, XXI, XXII, and XXIII.

²⁰⁰ Op. cit., ADL, EIR, pp. V-A-57 to V-A-70.

TABLE XXV

c. Marginal Construction Employment Impact of YBC

	CONSTRUCTION EMPLOYMENT WITH YERRA BUENA	CONSTRUCTION EMPLOYMENT WITHOUT YERRA BUENA	NET DIFFERENCE	PERCENTAGE IMPACT ON SAN FRANCISCO	PERCENTAGE IMPACT ON SMSA
1972	213.0	0	213.0	1.0	0.3
1973	937.0	253.0	684.0	3.1	0.8
1974	2,859.0	829.0	2,030.0	9.2	2.6
1975	3,707.0	1,075.0	2,632.0	12.0	3.4
1976	2,828.0	1,216.0	1,612.0	7.3	2.1
1977	376.0	259.0	117.0	0.5	0.2
1978	1,041.0	1,041.0	1,041.0	4.7	1.4
1979	1,058.0	984.0	74.0	0.3	0.09
1980	842.0	715.0	127.0	0.6	0.2
1981	637.0	605.0	32.0	0.1	0.04
1982	363.0	363.0	0	0	0

Source: A.D. Little and URS Research Company, Draft Environmental Impact Statement, p. V-A-69, Table A-36.

Based upon these factors, the total YBC-generated construction employment was projected, as shown on Table XXV. Again, this represents maximum employment, although a larger portion of this employment may have been generated in San Francisco without the construction of YBC. Approximately 33% of the labor force is estimated to be San Francisco residents.

4. Summary of YBC Economic and Fiscal Impact

Table XXVI projects the total economic costs and benefits of the proposed Project, exclusive of employment and the amortization fund. The net fiscal impact, including the amortization fund, is presented in Table XXVII.

As shown, the City will suffer a financial loss during the early years of the Project. About 1984, the Project will generate surplus funds, and by 1986, a surplus will be realized in the general fund, which will accelerate in each subsequent year. These estimates do not reflect the City's increased economic base due to imported revenues and the multiplier effect of increased personal income. These benefits are difficult to measure with precision, but are critical to maintaining a viable metropolitan economic base.²⁰¹

Impact of the Plan Changes ²⁰²

- Proposed Housing

As discussed above, the proposed housing is currently recommended to be financed in an amount approximately equal to 8.3% of the hotel tax revenues and \$100,000 of the Convention and Visitors Bureau fund on an annual basis.²⁰³ Since these revenues would not generally be available to the City's general fund, there is not expected to be any significant negative fiscal impact from the construction of the housing.

However, the three housing sites within the Project area which will now be publicly owned were previously designated for office use and, therefore, the property tax revenues from these sites will be lost.

²⁰¹These impacts will be substantially altered by a settlement reached subsequent to the preparation of this Statement and approved by the Board of Supervisors. This calls for the deletion of the Sports Arena and limits the total bond issue to \$210,000,000. Refer to the sections on "Alternatives" and "Mitigating Measures" for a fuller discussion of the settlement.

²⁰²Refer to Section III.F. for a description of the proposed Plan Changes.

²⁰³This is the method of financing recommended in the TOOR/Agency settlement, and appears to be the method which will be employed.

TABLE XXVI

Preliminary Economic Costs and Benefits
(000's)

Funds Previously Available To General Fund	(1)	Hotel Revenues Marginal Delegates	(2)	Retail Revenues Marginal Delegates	(3)	Restaurant Revenues Marginal Delegates	(4)	Hotel Revenues Arena Spectators	(5)	Restaurantes Revenues Arena Spectators	(6)	Non Cash Credits	Gross Impact
1979	(432)	\$ 451		\$ 35		\$ 68		\$ 13		\$ 7		1,968	2,110
1980	(439)	463		36		70		13		8		1,968	2,119
1981	(444)	475		38		73		13		8		1,968	2,131
1982	(450)	488		39		76		13		8		1,968	2,142
1983	(453)	523		43		82		14		9		1,968	2,186
1984	(445)	624		52		100		14		9		1,968	2,322
1985	(439)	710		61		118		14		9		1,968	2,441
1986	(432)	826		72		139		14		10		1,968	2,549
1987	(426)	951		84		162		15		10		1,968	2,764
1988	(418)	1,085		97		187		15		11		1,968	2,945
1989	(412)	1,264		111		214		15		11		1,968	3,171
1990	(405)	1,428		126		244		15		12		1,968	3,388

(1) Table XIII
(2) Table XVI
(3) Table XVIII
(4) Table XIX
(5) Table XX
(6) Table XXI

TABLE XXVII
(in millions)

YBC Net Fiscal Impact

	<u>Economics Balance</u>	<u>Amortization Fund Balance at 7%</u>	<u>Net Annual Impact</u>	<u>Cumulative Impact</u>
1979	2.1	(6.5)	(4.4)	(6.3)
1980	2.1	(6.4)	(4.3)	(8.7)
1981	2.2	(4.7)	(2.5)	(11.2)
1982	2.2	(4.3)	(2.1)	(13.3)
1983	2.2	(2.3)	(0.1)	(13.4)
1984	2.3	1.7	3.7	(9.7)
1985	2.5	1.8	4.3	(5.4)
1986	2.6	3.5	6.1	0.7
1987	2.8	3.6	6.4	7.1
1988	3.0	3.8	6.8	13.9
1989	3.2	3.9	7.1	21.0
1990	3.4	4.0	7.4	28.4

- Proposed Hotel

As discussed above, the demand for hotel rooms is expected to exceed available rooms by 1977. This combined with the propitious location of the proposed YBC hotel appear to assure that the hotel will receive adequate business.

The YBC hotel is estimated to provide 5% of the total hotel room use-days available in the City at the time of its completion. Although this hotel is likely to receive priority use due to its strategic location, it is not expected to threaten the City's existing hotels, due to the size of the total demand and to the YBC hotel's small percentage of the total use-days.²⁰⁴

Since the hotel is to be constructed with private funds, it will not place any additional burden upon the City's general fund. To the contrary, it will provide approximately \$175,500 per year in site rental, as well as property tax increments to the amortization fund and approximately \$497,500 per year in room tax revenues, beginning in 1977 and inflated forward at 4% per year. Thus, the net economic effect of the proposed hotel is expected to be positive.

²⁰⁴ YBC hotel annual use-days = 255,500; total hotel use-days in 1976 = 5,450,545; total estimated use-day demand in 1977 = 8,028,580.

V. ALTERNATIVES

V. Alternatives

Alternatives to the proposed Project are considered to be major alterations of the area from what is currently planned. More minor changes, such as the design of roof tops or the technique for guarding against areal subsidence, are considered to be "mitigating measures" which can be easily implemented within the context of the existing plan. Many of these potential and actual mitigation measures have been discussed in relation to the specific environmental impacts.

The alternatives which are considered here include:

- No Project;
- Disapproval of the requested plan changes
 - (a) Hotel
 - (b) Low-income Housing;
- Conversion of the area to a "New-Town-in-Town"; and
- Conversion of part or all of the Project to park recreational uses

A. No Project

Although the alternative of "no project" is identified in environmental guidelines as a mandatory alternative for consideration, it was intended by its promulgators to be considered prior to the initial approval and funding of a project. In the case of YBC, the project already exists with concomitant approval and funding and thus, the most realistic interpretation of this alternative is "what is the minimum action required to extricate federal and local involvement from this Project?"

The major outstanding legal and financial obligations which must be satisfied before terminating public involvement with the Project is the repayment of the Project loan, authorized in the amount of approximately \$64,000,000 and the provision of the outstanding local share in the amount of approximately \$28,600,000.

The original loan was authorized by HUD in 1966 and has been amended several times since then. It has been used to acquire virtually all of the Project land (over 86%) and to provide extensive relocation, demolition, and site improvement activities. As discussed in Section II of this Statement, this loan is repaid by a combination of federal grant funds and the proceeds from the sale of Project land. Adequate grant funds in the amount of approximately \$45,000,000 have already been allocated by HUD to satisfy its portion of the Project's existing Urban Renewal financing plan. However, approximately \$19,000,000 in land still remains to be sold for repayment of the loan.

The quickest way to reach "no project" status is to sell each parcel of land to the first bidder or bidders who present a fair market offer. This has the very obvious disadvantage of leading to the development of a totally unplanned area. It is difficult to predict if there would be a market for this land under such conditions, and even more difficult to predict what type of development would result. The current zoning restrictions would limit development to primarily office, retail and light industrial development.

Although this would relieve the City of any further responsibility for developing the Project land, assuming it could be sold, the City would still be obligated to produce an additional \$28,600,000 in cash or sufficient non-cash credits to match those federal funds already obligated but unmatched in YBC and other projects.²⁰⁵ This would represent a significant economic burden upon the City's finances, with the economic return being extremely uncertain.

Assessing the environmental impacts of such an alternative is virtually impossible due to the uncertainty of the eventual use. However, if unplanned urban growth of the past is an indicator, the adverse environmental impacts are likely to be far more severe than those of the currently planned Project.

A variation upon this theme would be to sell all of the land on the private market in accordance with a revised plan. However, this could not be considered as "no project" or "minimum action," but rather as a major alternative to the currently planned Project. Such a plan is discussed in Alternative C below.

B. Disapproval of the requested plan changes

The triggering action for the preparation of this EIS and the major decision issue before HUD, is the cumulative effect of two requested changes to the originally approved Urban Renewal Plan. These changes are the inclusion of a hotel in the Central Blocks area in place of a 510,000 square-foot office building, and the land use change of three parcels in the Peripheral Blocks area from commercial to residential use. The impacts of each of these Plan Changes are discussed in detail in Section IV of this Statement, and, thus, will be summarized only briefly here.

205 Refer to Section IV, F, "Economics and Financing" for an explanation of YBC's non-cash credits.

These proposed changes are major YBC decision issues which are currently awaiting HUD action, and, therefore, the alternative of approval or disapproval of these changes warrants special attention here.

(1) Disapproval of the Proposed Hotel

Disapproval of the request for the inclusion of a hotel in the Project area would leave in effect the original plan which called for an office building on that site of approximately 510,000 square feet. As discussed in detail in each of the environmental impact sections, the hotel produces less solid and liquid wastes than the proposed office building, places a smaller demand upon utilities and their related natural resources, and contributes fewer vehicles to the projected modal traffic split.

A disadvantage of the hotel is that it provides fewer employment opportunities than the proposed office building (490 employees as opposed to 2,550). In terms of revenue to the City, each use would be required to provide a similar site rental payment; however, the hotel would provide additional revenues through the 6% room tax.

A potential negative impact of the hotel is its permitted bulk, which exceeds the limitations of the Urban Design Plan and could create undesirable shadow and wind effects on portions of the central plaza areas. The potential impact of the originally proposed office building could be expected to be similar.

Since a lease agreement has not yet been signed with the private developer for this site, no drawings or design plans have been developed for the hotel. However, it is the intention of the developer to provide articulated facades and transitional levels from the street, similar to the apparel mart design, in order to mitigate this potential impact. All designs will be subject to the review and approval of the Redevelopment Agency, the City's Executive Architects, and the City's Urban Design Consultant.

In comparison with the originally proposed office building, the proposed hotel is considered superior in both environmental and economic terms, with the exception of the generation of employment opportunities. In absolute terms, the hotel's impact

upon the environment is extremely minor, as discussed in each of the impact sections. Thus, a disapproval of the requested plan change to include a hotel, does not appear to be a superior alternative to approval.

(2) Disapproval of the Proposed Housing

Disapproval of the proposed land use change to include low-income housing on three parcels within the peripheral blocks area would leave in effect the originally approved plan providing for office buildings on these sites, totalling approximately 400,000 square feet. Since the environmental conditions surrounding a residential area are considered more critical and are more stringently regulated than those surrounding office and commercial areas, it is important to consider the effect of the South of Market environment upon the proposed housing, as well as the impact of the housing upon the area.

- Effect of the Environment upon the Proposed Housing

The proposed housing is to be placed amidst other low-income elderly housing along the southwestern border of the Project, in an area already considered by City standards to have a disproportionately high ratio of low-income housing units.

The housing sites are adjacent to areas currently zoned for business services and light industrial uses. One of the sites (at Fourth and Harrison Streets) is also adjacent to heavily trafficked streets and freeway ramps.

The noise levels throughout the area exceed those which are generally considered acceptable for residential use by HUD standards. Due to the Project's proximity to the James Lick/Bayshore freeway and to major downtown access streets, the air pollutant concentration in the area is higher than in most residential areas of the City and can occasionally exceed applicable standards during simultaneous south-wind and peak period conditions. The availability of low-cost grocery stores and commercial developments is currently somewhat less than in other residential areas of the City. However, the

transportation system, terrain and available social services are conducive to the proposed use, and the area provides familiar surroundings and geographical location for the residents to be displaced by Project action.

- Effect of the Housing Upon the Environment

The proposed housing is expected to produce less liquid and solid wastes than the proposed office space and to generate a smaller demand upon the utilities and their related natural resources, with the exception of natural gas, in which case the demand will be slightly greater. The housing will contribute substantially fewer cars to the projected modal traffic split in the area than will the proposed office space.

The concentration of low-income housing in the South of Market area would be further increased beyond the desired City ratio; however, a well-articulated community desire -- and now a requirement of a legal settlement -- would be satisfied. The proposed action would also increase the number of standard low-income housing units in the city.

The economic benefits of the housing would be significantly less than those of the office space. The job opportunities and property tax revenues of the approximately 400,000 square feet of office space would be lost to the city.

- Balancing

The economic losses and the potential impact of the environment upon the housing in the South of Market area are negative impacts which need to be balanced against the positive impacts of increasing the number of available standard low-income housing units in the city; responding to a community-expressed desire, and now legal obligation, for additional housing in this area; and generally reducing the negative environmental impacts of the overall Project area. Approval of this requested plan change could only be justified if adequate measures are available to mitigate the potential impact of the environment upon the proposed housing.

As a means of protecting the proposed housing from the existing environmental conditions of the area, alternative housing sites were considered. The consideration of locating the proposed housing outside of the South of Market area was rejected in the course of the discussions leading to the legal settlement, since it would ignore the desire of the area's residents to have housing provided in the familiar South of Market surroundings. Alternative sites within the Project area do not offer superior protection from the traffic, noise, and air quality impacts of the area, since these factors are fairly constant throughout the entire area.

Although specific housing designs have not yet been developed, the consultant for the projects, Tenants and Owners Development Corporation (TODCO) has undertaken use and needs analyses to determine the most appropriate site planning and designs. These studies address such problems as social and commercial services; lifestyle requirements; and orientation of structures with regard to noise, traffic and inter-relationships of the complex. The findings of these studies and the efforts of TODCO are oriented toward maximizing the positive living environment of the projects and minimizing adverse conditions. For example, preliminary plans call for space for commercial establishments serving the residents; outside areas for recreational purposes, such as vegetable and flower gardens; and inward-facing structures, providing privacy from the noise and traffic. Such measures, combined with the community desire for this housing and the reduced impacts upon the surrounding environment, tend to tip the balance in favor of the proposed housing projects. Thus, disapproval of the proposed plan change does not appear to be a superior alternative.

C. New-Town-in-Town

As discussed in Section III, H., of this Statement, an initiative petition was circulated prior to the election of November 1973 by a group known as Friends of Yerba Buena, calling for an alternative method of financing the YBC Public Facilities and for certain changes in the composition of the Project elements. Although the petition did not receive an adequate number of signatures to be placed on the ballot, it, nevertheless, presents an alternative to the currently planned project.

The initiative required the repeal of the existing financing agreement for YBC and commencement of a project in conformance with HUD's "New-Town-in-Town" program and the State's "New Neighborhood Community" program. The basic concept is the provision of balanced mixed land uses and social services in an identified underutilized or blighted urban area.

The initiative called for the following land uses in YBC in the percentages indicated below (exclusive of streets and public rights-of-way).²⁰⁶

<u>Percentage</u>	<u>Approximate Acreage</u>	<u>Use</u>
25% (not less than)	14.1	low and moderate income housing; including not more than 10% of this total (approximately 1.4 acres) for a community health care and cultural center.
15% (not less than)	8.5	R-5 zoning classification (high density residential)
15% (not less than)	8.5	Public open and recreational space.
19% (not more than)	10.7	C-3-0 zoning classification (downtown office and commercial).
13% (not less than)	7.3	C-3-S zoning classification (downtown support).
13% (not less than)	7.3	M-1 zoning classification (light industrial and manufacturing).
<hr/> 100%	<hr/> 56.4 acres	

206 Approximately 35% or 30.9 acres are currently in streets and public rights of way.

Height limits of 84 feet were proposed for all areas, except those zoned C-3-0. In the latter case, heights up to 240 feet were permitted. Public parking was prohibited.

Planning and construction of the low and moderate-income housing and of the community health care and cultural center would be financed through the allocation of not less than 20% of the annual funds received by San Francisco under the provisions of the State and Local Assistance Act of 1972 until completion of the housing.²⁰⁷ Following construction, a percentage adequate to maintain the housing would be allocated annually. Hotel tax allocations of not less than 36% would be used to provide rent supplement payments to the residents of the proposed housing.

It is not specifically stated how the open space and other land uses would be financed, but it is assumed that the former would be developed and maintained with public funds, and the latter, privately.

The drafters of this initiative have indicated that the percentages presented above are to be considered as general parameters only, and not rigid requirements.²⁰⁸ Thus, although the percentages discussed here for purposes of analysis are those contained in the initiative, it should be remembered that these percentages are flexible.

Due to the lack of specific data, such as the number of square feet of commercial or manufacturing space, or the number, size and design of the proposed units, it is not possible to provide a detailed or specific economic or environmental assessment of the impacts of the proposed alternative. However, for purposes of making a general analysis and comparison of the proposed alternative, certain assumptions concerning this proposal are made:

207 These funds are known as "general revenue sharing." San Francisco's allocation is approximately \$26.5 million annually; thus the amount specified for the housing units is approximately \$5,300,000 annually until completion.

208 Refer to Part II, Comments from Mr. William Brinton.

- (1) It is assumed that certain land uses in the existing Plan and the proposed alternative are comparable, and can, therefore, be ignored in the comparative analysis, since they balance each other out. Included are the following:
 - (a) Approximately 33%, or 4.6 acres, of the alternative low and moderate income housing is balanced out by the acreage allocated for existing housing (Clementina Towers and a portion of Salvation Army Apartments) and proposed housing under the current plan (although the financing schemes are different);
 - (b) The acreage proposed for manufacturing and light industrial uses in both plans is relatively comparable; and
 - (c) Approximately 50% or 12.5 acres of the currently proposed office space in the peripheral blocks area is balanced out by the alternative's 18 acres of C-3-0 and C-3-S land use allocation. (Due to the difference in height restrictions, one acre of alternative office space is considered to equal .7 acres of office space in the existing plan.)

Therefore, the essential land uses remaining to be compared are the following:

- (d) Existing Plan: The entire Central Blocks area (approximately 18 acres, exclusive of streets and ways) and approximately 13.2 acres of office space in the Peripheral Blocks area;
 - (e) Alternative Plan: approximately 9.5 acres of low and moderate income housing, 8.5 acres of market rate housing, and 8.5 acres of public open space.
- (2) It is assumed that the "net" alternative housing will include units for both families (approximately 20%) and single individuals or couples (approximately 80%) and will be of medium density since buildings are limited to approximately eight stories. An average of 50 units per acre is presumed, for a total of approximately 900 residential units, housing approximately 1,600 persons.

- (3) It is assumed that no elaborate or expensive designs are envisaged for the public open spaces, and that development and annual maintenance costs would be relatively modest (approximately \$500,000 and \$50,000, respectively).
- (4) Since the initiative calls for City financing of the low and moderate income housing, it is assumed that, under both of these Plans, City funds would be required to purchase either 18 acres for the Central Blocks area or the 18 acres for the park and low and moderate income housing. Therefore, land cost to the City is balanced out. If the initiative proposal were altered to call for development of these units by a non-profit sponsor, a portion of the land cost would be shifted to the sponsor.²⁰⁹

Comparative Impacts

One unavoidable impact which would occur if any major development alternative to the existing YBC Plan were adopted at this time is the substantial expense in replanning the area. Not only would the existing cumulative investment of time and money spent for planning, administering, designing, and conducting intensive studies on the public facilities be lost (approximately \$8 million to date in local and HUD funds), but similar investments would be needed for any alternative development plan. In addition, existing legal obligations to private developers would have to be honored in some fashion in any alternative plan. It is not clear in the initiative proposal how these financial and legal obligations would be met. It can be anticipated that substantial added costs would be required for the proposed alternative for these purposes.

Comparing the net change in Project activities listed in "d" and "e" above, it is estimated that the proposed alternative would generate approximately one-half the solid and liquid wastes of the existing Plan, and the demand upon utilities and their related natural resources could be reduced by as much as three-fourths by the "New-town-in-town."

209 Although the cost of the land would likely be less for the alternative uses, the City would still be required to make up the deficit in the loan repayment fund of the Urban Renewal program, resulting from the reduced land proceeds.

The existing plan would generate more surge traffic, particularly during evening peak period hours when the entertainment facilities are in use, thus contributing more to the noise and air pollution concentrations in the area. There is no way to compare the parking capacity of the two plans at this point, since the amount of parking for the alternative plan is not specified. Although public parking is prohibited, there is not a similar prohibition placed upon privately-owned and operated parking garages.

The residential acreage proposed in the initiative would provide needed additional housing units in the City for individuals and families of various economic means, and would provide the benefit to the existing housing in the South of Market of increasing the residential nature of the area. However, this entire area is generally not considered appropriate for residential uses due to the existing high level of traffic, air pollutant concentrations, and noise generated by vehicles passing along the area's major thoroughfares, mostly to and from the nearby freeways. It would be necessary to provide special landscaping, insulation and engineering and architectural techniques to adequately protect the housing from these environmental conditions.

The publicly-financed housing and the public open space would involve substantially lower initial construction costs than the proposed Central Blocks public facilities. However, a deficit of over \$28 million would result in the local share account.²¹⁰ Additionally, whereas, the public facilities will begin to generate direct and indirect revenues to the City -- and, most importantly, revenues imported from outside the regional base -- as they become operational, the public housing and park will generate no revenues, but will conversely require continuous City funding for ongoing maintenance and operation.

Both the market rate housing in the New-Town-in-Town and the net office space acreage in the existing plan would provide property tax revenues, although these would be greater from the latter. The office spaces would also offer employment opportunities which would not be provided by the alternative housing.

210 Projects financed with general revenue sharing funds are not eligible to be used for local match.

Balancing

Adoption of this alternative would provide needed additional housing units in the City, increase the residential nature of the area, further reduce some of the environmental impacts of the existing plan, and involve lower initial construction costs.

It would also mean the loss of planning investments for the current project and additional planning costs for the alternative proposal; a deficit in the City's local share account; and loss of direct and indirect revenues from the currently planned public facilities and of employment opportunities, which are the major objectives of the current plan. As with the proposed low-income housing sites, mitigating measures would have to be taken to protect this housing from the current traffic and noise conditions in the area.

Thus, although this alternative offers certain benefits to the City, it does not satisfy many of the objectives established for this plan by the local governing body and approved by HUD in accordance with the Housing Act. The balance of impacts is such that rejection of the current plan in favor of this alternative does not appear justified.

Negotiations between the City and certain supporters of this alternative have been underway during the past months. Preliminary agreements appear to incorporate the positive aspects of this alternative while retaining the main elements of the existing plan which meet the original objectives established by the City.

The plans for the Central Blocks area would be retained, with the exception of the Sports Arena, which would be replaced with an interim park. The Sports Arena is neither a major generator of revenue nor an element of the City's obligated local share contribution. The amount of replanning to effect this change would be minimal. Thus, no negative economic impact is anticipated.

Approximately 900,000 to 1,000,000 square feet of office space are proposed to be replaced by approximately 900 units of market rate housing. Although this would reduce the employment opportunities offered by the project, it would not be expected to reduce tax revenues, and could be expected to slightly reduce the environmental impacts of the currently planned project as discussed above. The convention complex would be retained and, thus, the indirect revenues and employment it is expected to generate would also be retained.

Since these revisions can be implemented within the context of the existing plan, they are considered as mitigating measures rather than major project alternatives, and are discussed as such in later sections.

D. Conversion of Part or All of the Project Area to Park and Recreational Uses

Three variations have been suggested involving park and recreational uses in the project area. These include converting the entire area to a park, converting the two major central blocks to a park, and converting the Sports Arena site to a park.

Major attention is directed here to the second variation since it has been the subject of extensive study by members of the San Francisco Ecology Center.²¹¹ The first alternative is no longer feasible since legal contracts have been signed with a number of private developers for land parcels in the area. In addition, it can be considered gross underutilization of prime downtown property. It would cost the City approximately \$19,000,000 in land costs; \$5,000,000 for construction; \$500,00 annually for maintenance; \$25,000,000 in forfeited non-cash credits; and over \$2,000,000 annually from forfeited property tax revenues, with no financial return to repay the investment or to provide overall economic benefits to the City.

The third variation is not considered to be a major alternative since it could be implemented within the current objectives of the Redevelopment Plan, without requiring overall rejection of the Plan as it now exists. As such it is discussed in later sections as a mitigating measure. However, since this variation has been the subject of extensive negotiations among representatives of the City, the Agency, and project opponents, and appears likely for adoption by the local governing body, it is used here as a basis of comparison with the Ecology Center's proposal.

The Ecology Center proposes that the two major central blocks bounded by Mission, Third, Fourth and Folsom Streets be converted to park use. The currently proposed uses include a public parking garage, convention complex, sports arena, central concourse, hotel, office building, and apparel mart with a private garage. Construction of the park would eliminate nearly all of the environmental impacts of these structures, with the exception of the parking garages and their related traffic, noise and air pollution impacts. Parking requirements in the peripheral blocks have been removed by the Agency under section 146(f) of the Planning Code on the basis that adequate spaces will be provided in the Central Blocks to meet these requirements. If these garages are removed, the requirements in the peripheral blocks will have to be reinstated, thus balancing out the provision of parking facilities. However, two major traffic generators --- the office building during

²¹¹ Refer to Part II, Comments in Response to the Draft Statement.

peak periods and the sports arena during nighttime surge periods -²¹²
would be deleted, thus reducing traffic impact from these sources.

By referring to the preceeding impact sections, deleting the environmental impacts generated by the currently proposed Central Blocks, and assuming no negative effects from the park, it can be seen that the park alternative would also reduce other impacts of the project, including liquid wastes and electrical consumption by approximately one-half, and solid wastes and natural gas consumption by approximately one-fourth. However, these impacts of the currently planned project are not considered to be major, and are expected to be further mitigated by steps to be taken by the City and the Agency. The effect of the park, while improving the environmental nature of the project, would not have major significance in terms of overall City impact. (For example, the planned project will constitute approximately 2.0% of the sewage flow to the North Point Treatment Plant; the park alternative would reduce this to 1.0%, or from 1.38 mgd to 0.69 mgd.) The impact upon project displacees is not expected to be altered by this alternative.

Aesthetically, the park alternative would provide a large tranquil green space in the center of the City which would be pleasing to both the participant and the observer. The currently planned project includes 11.7 acres and \$13,000,000 for landscaping, a fountain and public plaza areas. However, this open area is expected to be of a more urban and less tranquil nature than the park.

Two economic analyses were prepared by the Ecology Center, comparing the economic impacts of the park alternative and the project as currently planned. The latest of these analyses involves a discounted cash flow approach, using tax increments to finance the cost of the park (estimated by the Ecology Center at \$14,000,000 for land, \$3,000,000 for construction, and \$200,000 annually for maintenance).

This analysis shows a cumulative balance from the project with the park alternative of \$45,533,716 by 1990. It shows a cumulative loss by 1990 of \$86,604,594 from the project as currently planned (refer to comment section). This approach does not address the indirect revenues generated by the projected convention business; the benefits of bringing extra-regional income into the area; the effect of forfeiting over \$25,000,000 in non-cash credits; the loss of employment opportunities, both during construction and following project completion, and its multiplier effect upon personal income; or the commitment of funds already made toward the plans and designs of the existing project.

The analysis is valid in the sense that the cost of the park is substantially less than the currently proposed project and can be repaid far more quickly through the use of tax increments, if such use were

²¹²Traffic would also be reduced through deletion of the remaining structures, although these are not considered to be major generators of vehicular traffic, and, thus, the impact is less significant.

approved by the local governing body.

The earlier of their two analyses shows a fuller economic assessment which incorporates indirect revenues and uses the maximum interest rate approved by the Board of Supervisors of 7%.²¹³ However, the economic tables do not include a computation of the loss to the City in noncash credits. The narrative refers to this factor, but erroneously subtracts \$17,000,000 as the park's share of the credits. Under current HUD regulations, the donation of the land would not be eligible as a noncash credit, and construction of the park could only be credited in the percentage that the park serves the project area exclusively. Thus, the net loss to the City in noncash credits would be over \$25,000,000.

There is also no computation of the loss to the City of funds already invested in the currently planned central blocks, which now exceeds \$8,000,000. These two items alone would add \$33,000,000 to the implicit cost of the park, bringing the total to \$50,000,000.

As pointed out in both analyses by the Ecology Center, the currently planned project is costly and will require extensive commitment of resources by the City. Unlike the park, however, the currently proposed central blocks will be a long-term generator of revenues and employment for the City, which is one of the Plan's primary objectives. As shown on Table A, the present value of the future flow which is expected to be circulated through the City's economy is \$248,000,000 between completion and 1990, plus its concomitant multiplier effect upon employment, personal income and revenues to the City.

The third variation of the park proposal, the replacement of the Sports Arena with a 2.3 acre park, combines many of the positive aspects of the currently proposed plan and the Ecology Center proposal. It would delete the major peak traffic generators in the central blocks. This proposal also includes replacement of a portion of the office space with residential units.) It would reduce the other negative impacts associated with the Arena and office space, and would provide open green space in the center of the City. The deletion of the Sports Arena would reduce the annual amortization amount by over \$4,000,000, while still retaining the the major positive economic and employment benefits of the convention center, the total \$28,700,000 in noncash credits, and the major portion of the completed plans and designs. The exposure to the City's general fund would thus be substantially reduced.

²¹³As noted by the Accountants for the Public Interest in their report to the Ecology Center, interest rates have escalated since the time of the preparation of the Draft Statement. There are now indications that the rate will decline over the coming months. In essence, the fluctuations in the bond market are so great that it is not possible to predict with precision what the rate will be three or four months hence. Seven percent (7%) is used here and in the summary of economic impacts in order to be conservative and to accommodate the estimates prepared by the Ecology Center.

TABLE A (000's)

	<u>Motel Revenues</u> (1)	<u>Retail Expend.</u> (2)	<u>Restaurant Sales</u> (3)	<u>Hall Revenues</u> (4)	<u>Sports Arena</u> (5)	<u>Total</u>	<u>Present Value*</u>
1979	\$7,297	\$3,506	\$6,771	\$122	\$747	\$18,443	\$18,443
1980	7,588	3,646	7,042	127	770	19,173	16,746
1981	7,891	3,792	7,324	132	808	19,947	16,282
1982	8,207	3,943	7,616	138	841	20,795	15,864
1983	8,890	4,271	8,249	143	874	22,427	15,990
1984	10,741	5,161	9,968	149	909	26,928	17,943
1985	12,753	6,127	11,834	155	945	31,814	19,812
1986	14,989	7,201	13,907	161	983	37,241	21,674
1987	17,438	8,377	16,180	168	1,023	43,186	23,990
1988	20,116	9,663	18,665	174	1,064	49,682	25,255
1989	23,040	11,067	21,377	181	1,106	56,771	26,971
1990	26,313	12,614	24,363	189	1,150	64,629	28,696

\$247,666

*Discounted at 7%

- (1) From Table XVIII
- (2) From Table XX
- (3) From Table XXI
- (4) From Table XXII
- (5) From Table XXIII

Although replacing the central blocks area with a park would reduce some of the projected adverse environmental impacts of the project, the reduction would not be major in terms of overall City impact. Due to mitigating steps taken by the City and the Agency, the project as currently planned is considered environmentally sound.

Adoption of the Ecology Center proposal would require rejection of major elements of the previously approved plan, its objectives, and completed activities. Although substantially less expensive in terms of initial costs, the park would not be a long-term generator of revenues and income in the City. The plan as currently proposed provides substantial public open space, which is likely to be increased even more through the adoption of the settlement delting the Sports Arena.

Thus, although this alternative offers certain benefits to the City, it does not satisfy many of the objectives established for this plan by the local governing body and approved by HUD in accordance with the Housing Act. The balance of impacts is such that rejection of the current plan in favor of this alternative does not appear warranted.

VI. Probable Adverse Environmental Impacts

Several potentially negative environmental impacts have been identified in relation to the proposed project. Steps have been taken by the City and the Redevelopment Agency, in conjunction with HUD, to either avoid these impacts entirely or to minimize them to the maximum extent possible. As the result of the measures taken, the impacts are not expected to be major.

Although none of the alternatives discussed could be expected to avoid the negative environmental impacts entirely, some of the impacts could be reduced through one or more of the alternatives.

A. Unavoidable Adverse Impacts

All probable adverse environmental impacts which cannot be avoided should the proposal be implemented are discussed below:

1. Increased liquid wastes

A negative short-term impact of the planned YBC Project will result from a slight increase in the generation of liquid domestic wastes (approximately 2% of the current flow to the North Point Plant) and in street pollutant run-offs (in all instances, 0.3% or less) until such time as San Francisco upgrades its existing treatment facilities. The City has developed a plan for providing adequate city-wide treatment for all waste water flows by the early 1980's, and, thus, no long-term negative impact is anticipated. The City's adherence to this plan and timetable will be monitored and enforced by the California State Water Resource Control Board.

It is anticipated that the park and new-town-in-town alternative would each produce approximately one-half the amount of liquid wastes of the currently proposed project (or approximately 1% of the current North Point flow).²¹⁴ Thus, this short-term impact could be reduced through either of these alternatives.

214 The New-Town-in-Town proposal calls for an overall reduction in the height and thus the density within the entire project area. Thus, it has the effect of reducing most of the impacts of the overall project to as great an extent as the park alternative.

The proposed plan change for housing constitutes a slight reduction in the generation of liquid wastes from the previously planned land uses (approximately .07 mgd); the hotel plan change does not have any significant effect upon the amount of liquid wastes.

2. Generation of solid wastes

During the construction phase, the project is expected to produce approximately 3,667 tons of construction debris per year, thus reducing the life expectancy of the Richmond disposal site by approximately .01%, or 3 weeks. It is also expected that spillage along the haul routes will contribute to the amount of street run-off pollutants. The effect of this spillage will be minimized through street cleaning requirements imposed upon the contractors and through a recently accelerated City street cleaning program.

Each of the park and the new-town-in-town alterations would reduce the amount of construction debris by approximately one-half and thus would have a lesser effect upon the life expectancy of the Richmond disposal site. The effect of the proposed plan changes is insignificant.

The proposed project is anticipated to generate approximately 5% of the City's total annual solid domestic waste. To minimize the potential impact of this increase in solid waste, a compactor room is planned to service the public facilities, and the Agency, through its offering documents and land disposition agreements, can direct the actions and plans of private developers with regard to solid waste handling. These measures, in conjunction with new procedures for handling waste such as the ABAG Regional Solid Waste Recycling-Composting Project, are expected to minimize the impact of this increase in solid waste generation.

The new-town-in-town alternative would be expected to reduce the amount of solid domestic wastes by approximately one-half to 2.5% of the City total. The park alternative would reduce wastes by approximately one-fourth to 3.75%. The proposed housing and hotel plan changes would reduce the amount of solid wastes by a small degree of approximately 900 tons per year and 500 tons per year, respectively.

3. Energy consumption

The Project is not expected to have a negative impact upon the capability of the utility facilities, nor to threaten the supply of water available to the Region. However, it will increase San Francisco's consumption and demand for resources such as gas and electricity by approximately 0.4% and 6.4%, respectively.

To minimize this impact, the City plans to provide variable lighting controls for the public facilities and street lights, and to use natural gas rather than electric heating and cooling through a Central Plant. In addition, the Agency, through its offering documents and land disposition agreements, will monitor the actions and plans of private developers with regard to energy conservation techniques and designs.

The new-town-in-town and park alternates could be expected to reduce electrical consumption by approximately three-fourths and one-half, respectively. They would be likely to reduce natural gas consumption by approximately one-third and one-fourth, respectively. The proposed hotel and housing plan changes would slightly decrease electrical consumption, and slightly increase natural gas consumption.

4. Relocation of individuals, families and businesses

A negative impact can be anticipated as the result of the psychological disruption generally associated with displacement of persons and businesses from familiar surroundings. In addition, approximately one-third of the businesses can be expected to either discontinue business or experience a loss of personnel.

The economic impact of relocation for both persons and businesses is reimbursed through Federal relocation payments. In addition, relocation services are provided by the City's Central Relocation Services.

Over 1500 new or rehabilitated housing units have been provided by the City to accommodate displacees, and, thus, in most instances, residents have or will receive superior housing at rents they can afford.

The major portion of relocation has already taken place (approximately 92% of the families, 85% of the individuals, and 78% of the businesses). The number of available new and rehabilitated housing units is more than sufficient to accommodate the remaining caseload.

None of the alternatives would avoid the impact of displacing persons and businesses from their current establishments. However, the proposed housing plan change and the new-town-in-town alternative would both provide additional mitigating measures through additional standard low-income housing units in the South of Market area.

5. Traffic

Due to the slight net reduction in available parking spaces resulting from the proposed Project, it is not anticipated that the area will be able to accommodate any increase in peak period commuters. However, off-peak traffic and nighttime surge traffic are expected to increase as the result of activities in the Public Facilities. These increases are not expected to threaten the existing street capacity.

To guarantee that the traffic impact is contained, the City has already effected a reduction in the number of proposed Central Block parking spaces from 4,000 to 2,400. In addition, the Chief Administrative Officer has developed a parking management statement for the area to 1) further reduce parking facilities in the project area; 2) strictly limit the development of parking spaces in the surrounding area; and 3) increase and expand transit programs and incentives. As the result of these measures, the potential impact of increased traffic is expected to be minimized.

The park alternative would reduce the amount of both peak and off-peak traffic by eliminating the proposed parking facilities in the Central Blocks, and the public facilities which will be attracting off-peak traffic. The new-town-in-town alternative could be expected to reduce peak traffic due to the reduced office space attracting commuters; however, off-peak traffic would remain high due to the increase in automobiles owned by project residents. However, surge traffic would be avoided.

The proposed hotel and housing plan changes would both slightly reduce the automobile demand in the area.

Short-term negative impacts will result from minor traffic disruption during the construction period. Efforts to mitigate this impact include the provision of queuing space for construction vehicles within the site, using tunneling rather than open ditches for the relocation of utilities, and limiting major street work to off-peak hours.

6. Noise

The efforts of the City to severely limit traffic in the area will minimize the impact of this major noise generator. Thus, noise levels following project completion are not expected to noticeably increase.

The park alternative could be expected to reduce current noise levels by providing open space rather than buildings, and by generating and accommodating fewer automobiles. The new-town-in-town alternative would also be expected to slightly reduce the noise impact from traffic, although to a lesser degree than the park. However, the existing and projected noise levels in the area, even without any development in the Project area, are sufficiently high that park and residential uses would be adversely affected, according to Department of Transportation criteria (park area--not to exceed 60dB(A), L10; residential--not to exceed 70dB(A), L10). The proposed housing and hotel plan changes would be similarly negatively effected by the existing noise level in the area.

A substantial negative short-term noise impact will occur during the construction phase. The City has recently passed a noise ordinance which will require muffling devices and reduced noise emissions from construction vehicles, and prohibits construction during the hours of 8 PM to 7 AM unless a special permit is granted, which will serve to mitigate the construction noise impact.

7. Air Quality

YBC is not expected to significantly increase the air pollution in the South of Market area. The air quality in the area is generally acceptable; however, in worst case conditions there is a potential that the hydrocarbon, nitrous oxide and particulate standards could be exceeded, although such instances would be infrequent.

The main generator of air pollution, automobile traffic, will be contained through the City policies and actions discussed previously and, thus, this impact is expected to be minimized. To the extent that they further reduce traffic volume, the proposed alternatives of a park, a new-town-in-town and the proposed plan changes would be expected to produce less air pollutants than the proposed Plan.

A short-term negative impact is expected during the construction phase. Gaseous emissions from construction vehicles and asphalt pouring and the particulate content of the air during excavation activities are expected to increase during this period. The gaseous emissions are not expected to exceed acceptable standards; however, it is likely that the particulate level will exceed the 24-hour State standards. Proper construction practices, such as wetting down of the site, will be employed to reduce this impact in accordance with City permit requirements.

B. Project Modifications to Avoid Negative Impacts

In addition to the mitigating measures discussed above to minimize unavoidable adverse impacts, other measures have been taken or are planned in order to avoid potential adverse impacts or produce positive impacts. These include the following:

1. the commitment of \$13,000,000 in public funds and 1% of all private development funds to provide landscaping and art objects, thus increasing the vegetation and aesthetic nature of the area;
2. the use of monitoring techniques to prevent any potential adverse impact from areal subsidence;

3. the preparation of dynamic analyses of the public facilities and close monitoring of all private construction to assure earthquake safety;
4. development of a parking proposal to prevent the potential undesirable land use impact of proliferation of parking facilities in the surrounding area;
5. undergrounding of the parking garages and exhibit hall, and design modifications by the private developer to prevent negative aesthetic impacts;
6. deferral of action on the Jessie Street substation to allow time for further studies and treatment proposals, appropriate to the structure's architectural and historic significance; retention and rehabilitation of the St. Patrick's Church; and
7. invitation for site monitoring of all public earth-moving activities in order to identify and preserve any articles of archeological significance.

Certain further measures were suggested in comments received in response to the Draft EIS²¹⁵, including the following:

1. elimination of the Sports Arena;
2. reduction of office space by 50%;
3. more land for the proposed low-cost housing;
4. the provision of area within the project for service industry;
5. financing of the project through capital provided by such project beneficiaries as the hotel and restaurant industries, stores and property owners.

215 Refer to Part II, Comments from San Francisco Tomorrow.

Points #1 and #2 are currently the subject of settlement agreements which are before the local governing body for approval. The agreements include the replacement of the Sports Arena by an interim park, and the replacement of approximately 1,000,000 square feet of office space (a 15% reduction, not the 50% suggested above) by 900 units of market rate housing. If approved, these modifications would further mitigate the adverse impacts discussed above, and would also improve the economic benefits of the project. Deletion of the Sports Arena would reduce initial construction costs by over \$50,000,000. This would reduce annual amortization costs by approximately \$4,250,000 (at 7% interest) while reducing annual revenues by only approximately \$1,000,000 or less. Thus, elimination of the Sports Arena would alleviate the exposure to the City's general fund during the early years of amortization.

Point #3 is not believed a necessary measure in accordance with HUD land use intensity criteria. Furthermore, additional land area is not readily available without requiring the acquisition of basically sound and already rehabilitated structures.

Point "4" suggests the provision of area for service industries in the project. This is being provided in Blocks 3750, 3751, and 3752. Many of the existing business services in this area will remain and will rehabilitate their property through owner participation agreements with the Agency.

Point "5" suggests financing of the public facilities by private rather than public interests. Although it remains the intention of the City to finance these facilities through public means, taxes have been imposed upon the hotel industry to assist in the financing of project construction and related project activities.

C. Countervailing Interests

Significant actions have been taken by the City and the Redevelopment Agency to minimize the potential adverse impacts of the proposed project. Because of these actions, the seriousness of the impacts is not significant, and the project is acceptable from an environmental standpoint.

In addition the project is expected to provide benefits to the City including the removal of blight; the infusion of additional extra-regional funds into the area; increased employment and personal income; and the planned development of the Central Business District toward the South of Market area and along the Market Street transit corridor.

Due to these benefits, to the extensive actions taken by the City to minimize adverse environmental impacts, and to the stage of project activity, the project as currently planned is environmentally sound.

The proposed plan changes will slightly further reduce most adverse impacts without undermining the benefits of the current project, and, therefore, also are acceptable.

VII. Commitments of Resources

Development of the proposal as planned would involve the irretrievable commitment of approximately 87 acres of land in the San Francisco downtown area, and would foreclose all options for alternative uses of the land for many years to come. However, the commitment of this land is not expected to involve the loss of any significant natural features, or any unique views or resources.

Of the two significant historic structures in the area, one is planned for retention and rehabilitation, and the other will be preserved until such time as treatment proposals are developed in consultation with the State Historic Preservation Officer, interested groups and individuals, and the Advisory Council for Historic Preservation. Any potential archeological sites which may be uncovered will be studied and preserved.

In the short-term the project is expected to render varying degrees of hardship upon the remaining residents and businesses who will be displaced by the redevelopment activities. It will cause disruption in the area during the construction phase in relationship to traffic, noise and air quality. If the project proceeds with the inclusion of the Sports Arena, there is expected to be a drain upon the City's general fund in the early years, which will either negatively impact the funding level of existing City programs or increase the local tax burden.

The long-term effects of the project are expected to be the upgrading of this area of the central business district physically, aesthetically and economically; the planned growth of new office construction during the next decade along the City's major transit corridor; the attraction of extra-regional funds to the area; and the increase of employment, personal income and the local sales and property taxes.

VIII. Problems and Objections Raised and HUD Accommodation

In response to the Draft Environmental Impact Statement, comments were received from numerous individuals, agencies and organizations. Objections raised related both to the factual content or completeness of the Statement, and to the projected impacts of the proposed project.

In the former instance, extensive additional research and searches for updated information and statistics were undertaken. The text has been updated in instances where this was appropriate and where information could be obtained. Requests were received for certain studies which were considered beyond the scope of the resources of this Department, such as a national study of the factors effecting convention trends. In such cases, efforts were made to find existing studies on the subject in question. Where none were available, this is noted in the text.

Comments on the Draft are appended in Part II of this Statement. In instances where responses to the comments have been incorporated into the text, the appropriate page numbers are noted next to each comment.

Adverse impacts identified in the Draft Statement and/or in response to the Statement have been the subject of extensive discussions and cooperative efforts with the City and the Agency, in an attempt to minimize such impacts to the extent possible. The measures taken or to be taken are discussed throughout the text and in the preceding section, and are summarized briefly here:

- Contract for an architectural and historical survey of the area, leading to a hold on action effecting the Jessie Street PG&E substation pending further studies and recommendations;

- Meetings with a staff member of the Treganza Anthropology Museum, and a commitment by the Agency and City to invite monitoring of earth-moving activities, in order to study and preserve any valuable finds. HUD is also pursuing the possibility that the Dept. of Interior might be able to provide funds to support such activities;
- Meetings with a member of San Francisco Tomorrow regarding energy conservation, leading to the adoption of Agency requirements for energy conservation measures by private developers;
- Meetings with various City and Agency officials, leading to the development of a parking management statement for the area, to reduce the potential traffic, noise and air quality impacts;
- Meetings with the Central Blocks private developer and TODCO consultants to review design plans, and measures taken to reduce impacts identified in the Draft Statement;
- Incorporation of language in Agency design criteria to maximize solid waste handling measures by private developers.

Many of the comments and suggestions received were helpful in improving the quality of the Statement and the quality of the project. All comments were seriously considered.

IX. Recommended HUD Action

Two proposed Plan Changes are currently before HUD for approval. Each of these proposals serve to slightly improve the environmental impacts of the previously approved project upon the environment.

The environment of the project area is not considered conducive to the proposed residential dwellings, due to the level of traffic, and noise in the area. However, efforts by the City to keep these latter impacts to a minimum, and efforts by the housing consultant TODCO to design and orient the units to protect them from these impacts, are expected to adequately mitigate this potentially negative effect. This plan change for the inclusion of housing will provide needed low-cost units in the City and will respond to a long-expressed desire of community residents to have such housing in the South of Market area.

The plan change to use an office building site for the construction of a hotel is an acceptable land use alternative. The hotel is expected to be more environmentally sound than the previously approved office building, and is not expected to create any significant adverse impacts.

It is, therefore, recommended that both plan changes be approved.

In accordance with federal regulations, the environmental review was expanded to cover the entire project area, rather than merely those items before this office for approval. Review of the project revealed numerous potentially adverse impacts. As discussed previously, steps have been taken to avoid or minimize these impacts. With these mitigating measures, the project is considered acceptable from an environmental standpoint, and its projected benefits appear to outweigh its probable adverse impacts.

Further mitigating measures resulting from settlement negotiations with project litigants are currently pending for action by the local governing body. It is expected that these measures would further improve the project benefits and further reduce adverse impacts. Although the project is acceptable without these additional measures, HUD strongly encourages their adoption by the local governing body in order to maximize project benefits.

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APPENDIX A

YERBA BUENA CENTER
PROJECT BOUNDARIES

Beginning at the intersection of the most northeasterly line of Third Street with the most northwesterly line of Jessie Street; running thence northeasterly along said northwesterly line of Jessie Street 285.00 feet more or less to the intersection of said northwesterly line with the most northeasterly line of Annie Street; said northeasterly line being the northerly projection of said line as Annie Street now exists south of Jessie Street; thence southeasterly along said northeasterly line 86.00 feet more or less; thence at right angles southwesterly 30.00 feet more or less to a point on the southwesterly line of Annie Street; said point also being the most easterly corner of Lot 32 of Assessor's Block 3707 and the most northerly corner of Lot 21 of said Block 3707; running thence southwesterly along the property line of said Lots 32 and 21 32.45 feet more or less to a point; said point also being the most southerly corner of said Lot 32; thence southeasterly 1.00 foot more or less along the property line of Lots 21 and 31 of Assessor's Block 3707; thence southwesterly 23.542 feet more or less to the most westerly corner of Lot 21 of said Block 3707; thence southeasterly 119.00 feet more or less along the southwesterly property line of said Lot 21 to a point on the northwesterly line of Mission Street; thence northeasterly along said northwesterly line 7.25 feet more or less; thence at right angles southeasterly 82.50 feet more or less to a point on the southeasterly line of Mission Street; said point also being the most northerly corner of Lot 66 and the most westerly corner of Lot 67 of Assessor's Block 3722; thence continuing southeasterly along the property line of said Lots 66 and 67 160.00 feet more or less to a point on the northwesterly line of Minna Street; thence northeasterly along said northwesterly line of Minna Street 68.75 feet more or less to a point on said northwesterly line; said point also being the most easterly corner of Lot 67 and the most southerly corner of Lot 68 of Assessor's Block 3722; thence at right angles southeasterly 35.00 feet more or less to a point on the southeasterly line of Minna Street; said point also being the most northerly corner of Lot 54 and the most westerly corner of Lot 56 of Assessor's Block 3722; thence continuing southeasterly 300.00 feet more or less along the northeasterly property lines of Lot 54, the northeasterly terminus of Massett Place, Lot 45, the northeasterly terminus of Hunt Street, and Lot 27,

all being a part of Assessor's Block 3722; thence southwesterly 18.00 feet more or less along the property line of Lots 27 and 26 of said Block 3722; thence southeasterly 55.00 feet more or less along the property line of said Lots 27 and 26 to a point on the northwesterly line of Howard Street; thence continuing southeasterly 82.50 feet more or less to a point on the southeasterly line of Howard Street; thence southwesterly along said southeasterly line of Howard Street 52.00 feet more or less to a point on said southeasterly line, said point also being the most northerly corner of Lot 38 and the most westerly corner of Lot 39 of Assessor's Block 3735; thence southeasterly 160.00 feet more or less along the northeasterly property lines of Lots 38 and 31 of said Block 3735 to a point on the northwesterly line of Tehama Street; thence northeasterly along said northwesterly line of Tehama Street 70.00 feet more or less to the northeasterly terminus of Tehama Street; thence southeasterly along said northeasterly terminus 35.00 feet more or less to a point on the southeasterly line of Tehama Street; said point also being the most westerly corner of Lot 17 and the most southerly corner of Lot 41 of Assessor's Block 3735; Thence northeasterly 112.50 feet more or less along the property line of said Lots 17 and 41 to a point on the southwesterly line of Hawthorne Street; thence northwesterly along said southwesterly line of Hawthorne Street 34.583 feet more or less; thence at right angles northeasterly 50.00 feet more or less to a point on the northeasterly line of Hawthorne Street; said point also being the most westerly corner of Lot 46 and the most southerly line of Lot 47 of Assessor's Block 3735; thence continuing northeasterly along the property line of said Lots 46 and 47 112.50 feet more or less to a point, said point also being the most easterly corner of said Lot 47; thence southeasterly along the property line of Lots 46 and 5 of Assessor's Block 3735 4.583 feet more or less; said point also being the most southerly corner of said Lot 5; thence northeasterly along the property line of said Lot 5 140.00 feet more or less to a point on the northwesterly line of Tehama Street; thence continuing along said northwesterly line of Tehama Street 217.50 feet more or less to the intersection of said northwesterly line with the northeasterly line of

Second Street; thence southeasterly along said northeasterly line of Second Street 467.50 feet more or less to the intersection of said northeasterly line with the most southeasterly line of Folsom Street; thence southwesterly along said southeasterly line of Folsom Street 470.00 feet more or less to the intersection of said southeasterly line with the intersection of the northeasterly line of Hawthorne Street; thence southeasterly along said northeasterly line of Hawthorne Street 632.50 feet more or less to a point on the southeasterly line of Harrison Street; thence southwesterly along said southeasterly line of Harrison Street 37.50 feet more or less to the most northerly corner of Lot 101 and the most westerly corner of Lot 105 of Assessor's Block 3763; thence southeasterly along the property line of said Lots 101 and 105 200.00 feet more or less to a point on the southeasterly line of Perry Street; thence southwesterly along said southeasterly line of Perry Street 482.50 feet more or less to a point on the southwesterly line of Third Street; thence northwesterly along said southwesterly line of Third Street 200.00 feet more or less to the intersection of said southwesterly line with the southeasterly line of Harrison Street; thence southwesterly along said southeasterly line of Harrison Street 987.50 feet more or less to a point on said southeasterly line; thence at right angles northwesterly across Harrison Street and along the property line between Lots 11, 11a and Lot 12 of Assessor's Block 3752 242.50 feet more or less to a point on the southeasterly line of Clara Street; thence southwesterly along said southeasterly line of Clara Street 145.00 feet more or less to a point on said southeasterly line; thence at right angles northwesterly across Clara Street and along the property lines of Lots 6 and 38 of Assessor's Block 3752 115.00 feet more or less to a point, said point being the most westerly corner of said Lot 38; thence northeasterly along the property line of said Lot 38 60.00 feet more or less to the most easterly corner of Lot 7 of said Block 3752; thence northwesterly along the property line of Lots 7 and 8 of said Block 3752 and the northwesterly projection thereof 110.00 feet more or less to a point on the northwesterly line of Shipley Street; thence northeasterly along said northwesterly line of Shipley Street 90.00 feet more or less to the most southerly corner of Lot 3 of Assessor's Block 3752; thence northwesterly along the property line between Lots 1, 2, 3 and Lot 94 of said Block 3752 165.00 feet

more or less to a point on the southeasterly line of Folsom Street; thence southwesterly along said southeasterly line of Folsom Street 30.00 feet more or less to a point on the said southeasterly line, said point being the southeasterly projection of the property line between Lots 13 and 14 of Assessor's Block 3733; thence at right angles northwesterly across Folsom Street and continuing along the property line of said Lots 13 and 14 162.50 feet more or less to the common corner of Lots 13, 14, 42 and 43 of said Block 3733; thence southwesterly along the property line between Lots 14, 16 and Lots 37, 38, 39, 41, 41a and 42 170.00 feet more or less to the most southerly corner of Lot 37 of said Block 3733; thence northwesterly along the property line between Lots 37 and 17 of said Block 3733 80.00 feet more or less to a point on the southeasterly line of Clementina Street; thence southwesterly along said southeasterly line of Clementina Street 175.00 feet more or less to a point on said southeasterly line, said point also being the southeasterly projection of the property line between Lots 53 and 54 of Assessor's Block 3733; thence northwesterly across Clementina Street and continuing along said property line of Lots 53 and 54 and continuing along the property lines of Lots 60a and 61 of said Block 3733 and the northwesterly projection thereof 235.00 feet more or less to a point on the northwesterly line of Tehama Street; thence northeasterly along said northwesterly line of Tehama Street 175.00 feet more less to a point on said northwesterly line; said point also being the most southerly corner of Lot 76 and the most easterly corner of Lot 84 of Assessor's Block 3733; thence northwesterly along the property line of said Lot 76 and 84 and the northwesterly projection thereof 237.50 feet more or less to a point on the northwesterly line of Howard Street; thence northeasterly along said northwesterly line of Howard Street 75.00 feet more or less to the intersection of said northwesterly line with the southwesterly line of Holland Court; thence northwesterly along said southwesterly line 275.00 feet more or less to the intersection of said southwesterly line with the northwesterly line of Holland Court; thence northeasterly along said northwesterly line 50.00 feet more or less to the most southerly corner of Lot 43 of Assessor's Block 3724; said point also being

the most easterly corner of Lot 16 of said Block 3724; thence northwesterly 357.50 feet more or less along the property line between said Lot 43 and 16 across Minna Street and continuing along the property line between Lot 63 and 64 of Block 3724 to a point on the northwesterly line of Mission Street; thence northeasterly along said northwesterly line 75.00 feet more or less to a point on said northwesterly line, said point being the most southerly corner of Lot 6 and the most easterly corner of Lot 7 of Assessor's Block 3705; thence northwesterly 200.00 feet more or less along the property line between Lots 5, 6 and Lot 7 of said Block 3705 to a point on the northwesterly line of Jessie Street; thence along said northwesterly line 157.50 feet to a point on the northeasterly line of Fourth Street; thence southeasterly along said northeasterly line 10.00 feet to the point of intersection of said northeasterly line with the northwesterly line of Jessie Street; thence along said northwesterly line 275.00 feet more or less; thence northwesterly 5.00 feet more or less; thence northeasterly along said northwesterly line 30.00 feet more or less to a point on the said northwesterly line, said point being the most southerly corner of Lot 26 and the most easterly corner of Lot 28 of Assessor's Block 3706; thence northwesterly 80.00 feet more or less to the most westerly corner of said Lot 26; thence northeasterly along the property line of said Lot 26 5.00 feet more or less to the most southerly corner of Lot 32 of said Block 3706; thence northwesterly along the property line of said Lot 32 70.00 feet more or less to a point on the southeasterly line of Stevenson Street, said point being the most westerly corner of said Lot 32 and the most northerly corner of Lot 28 of said Block 3706; thence southwesterly along said southeasterly line of Stevenson Street 160.00 feet more or less to a point on said southeasterly line, said point being on a line with the southeasterly projection of the property line between Lots 46 and 48 of said Block 3706; thence northwesterly across Stevenson Street and along said property line of Lots 46 and 48 205.00 feet more or less to a point on the southeasterly line of Market

Street, said point also being the most westerly corner of said Lot 46 and the most northerly corner of said Lot 48; thence northeasterly along said southeasterly line 350.00 feet more or less to a point on said southeasterly line, said point also being the most westerly corner of Lot 61 and the most northerly corner of Lot 60 of said Block 3706; thence southeasterly 100.00 feet more or less along the property line between Lots 60 and 61 to the most easterly corner of said Lot 60; thence southwesterly 10.00 feet more or less along the property line between said Lots 60 and 61 to a point, said point also being the corner of Lots 59 and 61 of said Block 3706; thence southeasterly 70.00 feet more or less along the property line between said Lots 59 and 61 to a point on the northwesterly line of Stevenson Street; thence along said northwesterly line 417.50 feet more or less to the intersection of said northwesterly line with the northeasterly line of Third Street; thence southeasterly along said northeasterly line 174.00 feet more or less to the point of beginning.

APPENDIX B

URBAN RENEWAL PLAN, 1966
ORIGINAL STANDARDS FOR DEVELOPMENT

TABLE I

STANDARDS FOR DEVELOPMENT

REDEVELOPMENT PLAN FOR THE
YERBA BUENA CENTER PROJECT AREA D-1

LAND USE DISTRICT <small>Land Use District designations refer to Land Use Plan A (Map 2) and Land Use Plan B (Map 3)</small>	PERMITTED USES <small>(1) (2)</small>	MAXIMUM FLOOR AREA RATIO	MAXIMUM & MINIMUM HEIGHT (3) (4)	MAXIMUM COVERAGE	MINIMUM SETBACKS	OFF-STREET PARKING SPACES	OFF-STREET LOADING BERTHS
DISTRICT No. 1 COMMERCIAL AND RETAIL	Business and professional offices, retail stores, personal service establishments, restaurants, clubs, theaters, meeting halls, churches, institutional and recreational buildings, off-street parking within a building.	16:1	Maximum: 25 stories Minimum: None	Below 40 feet: 100% Above 40 feet: 70%	Above 40 feet: 25 feet from interior lot lines.	None	
DISTRICT No. 2 SPECIAL USE	Business and professional offices, retail stores, personal service establishments, restaurants, clubs, theaters, meeting halls, churches, institutional and recreational buildings, off-street parking within a building.	9:1 FOR TOTAL AREA	Maximum: 30 stories Minimum: None	Below Plaza Level: 100% Above Plaza Level: 50% of total district covered by Sports Arena.	None	None	For 0 - 40,000 square feet of gross floor area in building, not less than one space; plus one space for each additional 40,000 square feet or major fraction thereof.
DISTRICT No. 3 TRANSITIONAL COMMERCIAL	Business and professional offices, retail stores, personal service establishments, restaurants, clubs, theaters, meeting halls, churches, institutional and recreational buildings, laboratories, and wholesale establishments not including warehouses, off-street parking within a building.	9:1 FOR TOTAL AREA	Maximum: 15 stories Minimum: None	Below 40 feet: 100% Above 40 feet: 70%	Above 40 feet: 25 feet from interior lot lines.	None	
DISTRICT No. 4 BUSINESS SERVICE AND LIGHT INDUSTRY	Business and professional offices, retail stores, personal service establishments, restaurants, laboratories, wholesale establishments, warehouses, storage buildings, automobile sales establishments within a building, repair garages, light industrial uses involving only assembly, packaging, repairing, or processing of previously prepared materials, public utility installations, off-street parking.	5:1	Maximum: 10 stories Minimum: None	100%	None	For business & professional offices, 1 space for each 500 sq. ft. of gross floor area for retail stores & personal service establishments, 1 space for each 500 sq. ft. of gross floor area for light industrial uses, 1 space for additional 250 sq. ft. for each additional 1,000 sq. ft. of gross floor area.	
DISTRICT No. 5 INSTITUTIONAL HOUSING	Institutions providing sleeping or dwelling units, public housing, and off-street parking.	9:1	Maximum: 15 stories Minimum: None	Below 30 feet: 70% Above 30 feet: 50%	Above 30 feet: 30 feet from all lot lines.	None	
DISTRICT No. 6 INSTITUTION	Public buildings, churches, labor unions, and welfare and other types of institutions, including institutions with sleeping or dwelling units, off-street parking.	5:1	Maximum: 10 stories Minimum: None	100%	None	None	
DISTRICT No. 7 PARKING FACILITIES	Parking facilities. (5)	NONE	Maximum: 50 feet Minimum: None	100%	None	Not applicable	

(1) Necessary public utility facilities may be located in any use district, subject to approval of the Agency.

(2) Existing properties designated for retention may be continued in their existing use.

(3) Maximum height limits shall not apply to the following features of the building, provided they do not occupy more than 10 percent of the maximum area covered by the building: penthouses, fire towers, chimneys, fire towers, water tanks, flag poles, radio and television antennas, and necessary mechanical apparatuses. Minimum height regulations shall apply to an area not less than 20 percent of the lot area.

(4) Building heights shall be measured from ground level.

(5) In the event that adequate substitute parking facilities are provided, other uses may be permitted in District 7 as follows:

- (a) In the area between Mission and General Streets, those uses permitted in District 2.
- (b) In the area between General and Paloma Streets, those uses permitted in District 3.
- (c) In the area between Paloma and the easterly project boundary, those uses permitted in District 4.

S.F.P.A.
August 12, 1968

7/27/68 2:12 PM

APPENDIX C

URBAN RENEWAL PLAN
PLAN CHANGE I

PROPOSED AMENDMENTS TO THE REDEVELOPMENT
PLAN FOR THE YERBA BUENA CENTER APPROVED
REDEVELOPMENT PROJECT AREA D-1

1. Delete any and all references to Land Use Plan B, and amend any and all references to Map 2: Land Use Plan A throughout the text to read, The Land Use Plan.
2. Amend Map 2: Land Use Plan A to conform to the map which appears on Page 6 of this Exhibit.
3. Amend the table, STANDARDS FOR DEVELOPMENT, to read as follows:

Land Use District	(1,2,3,4,7,8,9) Permitted Principal Use	Maximum Floor Area Ratio (5,6)
A	Business and professional offices; retail stores; personal services establishments; restaurants; clubs; theaters; meeting halls; churches; institutional and recreational buildings; offstreet parking structures.	14:1
B	Same as District A	10:1
C	Same as District A plus laboratories and wholesale establishments not including warehouses; except that in blocks designated for <u>Special Use</u> permitted uses include only those allowed in District A plus exhibit hall; sports arena; hotel providing accommodations for transient guests; and radio and television studios.	7:1
D	Housing specifically designed for occupancy by mature adults including offstreet parking and supporting recreational and other facilities.	7:1
E	Same as District A plus laboratories; wholesale establishments; printers; radio and television studios; building services and repairs; storage buildings; and light industries involving only assembly, packaging, repair or processing of previously prepared materials.	5:1

- (1) It is intended that retailing and consumer services shall be the predominant ground floor use along major street frontages in District B.
- (2) Where operating requirements necessitate location within the district, utility installations or public service facilities may be located in any use district, subject to approval of the Agency.

- (3) A facility for transit and related uses may be located in any block designated for Special Use.
- (4) District D uses may be developed as alternate uses on Lot 38, Block 3752.
- (5) Maximum height shall be governed by floor area ratio (bulk) limitations and by Design Guidelines for Yerba Buena Center formulated by the Redevelopment Agency.
- (6) In Districts A, B and C development bonuses specified in the following table, where applicable, may be added to the basic floor area ratio limit to determine the maximum floor area ratio for a building or development.

Each separate bonus shall be credited where it applies; except that features 1 and 2 shall be mutually exclusive, and features 8 and 9 shall also be mutually exclusive.

QUANTITY OF BONUS FLOOR AREA FOR EACH BUILDING FEATURE PROVIDED					
Building Feature	Unit Of Feature Upon Which Bonus Is Based	Square Feet of Bonus Floor Area Per Unit of Feature			Maximum For This Bonus (Per Cent of Basic Allowable Gross Floor Area)
		District A	District B	District C	
1. Rapid Transit Access	Larger of these two bonuses applies	Provision of direct access to station mezzanine			20
2. Rapid Transit Proximity		Each linear foot by which walking distance to station mezzanine is less than 750 feet			10
3. Parking Access		100	100	100	5
4. Multiple Building Entrance		10,000	10,000	5,000	5 (or one entrance, whichever is greater)
5. Sidewalk Widening		7	7	4	15
6. Shortening Walking Distance		40	40	30	10
7. Plaza		10	8	6	15
8. Side Setback		6	6	3	15
9. Low Coverage at Upper Floors	Larger of these two bonuses applies	Reduction of both building dimensions by 20% or more of the lot dimensions.			15
10. Observation Deck		10,000	10,000	10,000	Not Applicable

In District E the following premiums, where applicable may be added to the basic floor area ratio limit to determine the maximum floor area ratio for a building or development.

- (a) For a lot or portion thereof which is a cornerlot, a floor area premium may be added by increasing the area of the lot or portion for purposes of floor area ratio computation, by twenty-five percent.
 - (b) For an interior lot, or portion thereof, which abuts along its rear lot line upon an alley or street, a floor area premium may be added by increasing the depth of the lot or portion along such alley or street, for purposes of floor area ratio computation, by one-half the width of such alley or street or ten feet, whichever is the lesser.
- (7) In recognition of programs for providing public offstreet parking in excess of offstreet parking demand in Districts A, B and C, offstreet parking in these Districts shall be located in parking facilities in blocks designated for Special Use or in the portions of these Districts specifically designated for parking in the Land Use Plan.

Offstreet parking shall be provided in District E as follows:

<u>Use or activity</u>	<u>Number of offstreet spaces required</u>
Medical or dental office or clinic	One for each 300 square feet of occupied floor area, where the occupied floor area exceeds 5,000 square feet.
Other business office	One for each 500 square feet of occupied floor area, where the occupied floor area exceeds 5,000 square feet.
Retail space devoted to the handling of furniture or other bulky merchandise	One for each 1,000 square feet of occupied floor area, where the occupied floor area exceeds 5,000 square feet.
Other retail space	One for each 500 square feet of occupied floor area up to 20,000 square feet where the occupied floor area exceeds 5,000 square feet, plus one for each 250 square feet of occupied floor area in excess of 20,000.
Restaurant, night club, or other similar enterprise	One for each 200 square feet of occupied floor area, where the occupied floor area exceeds 5,000 square feet.
Theater or auditorium	One for each 8 seats up to 1,000 seats where the number of seats exceeds 50, plus one for each 10 seats in excess of 1,000.
Church	One for each 10 seats by which the number of seats in the main auditorium exceeds 100.

Service, repair or whole-sale sales space

One for each 1,000 square feet of occupied floor space, where the occupied floor area exceeds 5,000 square feet.

Storage or warehouse space

One for each 2,000 square feet of occupied floor area, where the occupied floor area exceeds 10,000 square feet.

Other manufacturing and industrial uses

One for each 1,500 square feet of occupied floor area where the occupied floor area exceeds 7,500 square feet.

In instances in which the Redevelopment Agency, and other public agencies involved, have certified by resolution that requirements of offstreet parking spaces will be satisfied in whole or in part by public offstreet parking facilities constructed or authorized to be constructed within the Yerba Buena Center Redevelopment Project Area or upon any other applicable basis, offstreet parking required for individual buildings and uses in District E may be correspondingly reduced if the total offstreet parking supply in the area will nevertheless meet the requirements of the schedule of required offstreet parking for all buildings and uses in the area.

(8) Offstreet loading spaces shall be provided as follows:

OFF-STREET FREIGHT LOADING SPACES REQUIRED

Use or Activity	Gross Floor Area of Building or Use (Sq. Ft.)	Number of Off-Street Freight Loading Spaces Required
Retail stores, wholesaling, manufacturing, and all other uses primarily engaged in the handling of goods.	0- 10,000	0
	10,001- 60,000	1
	60,001-100,000	2
	over 100,000	3 plus 1 for each additional 80,000 sq. ft.
Offices, hotels, and all other uses not included above.	0-100,000	0
	100,001-200,000	1
	200,001-500,000	2
	over 500,000	3 plus 1 for each additional 400,000 sq. ft.

(9) Existing properties designated as eligible for retention and rehabilitation may be continued in their existing uses, subject to compliance with Owner Participation Rules and Regulations promulgated by the Agency, including standards for rehabilitation.

APPENDIX D

URBAN RENEWAL PLAN
PLAN CHANGE II

PROPOSED AMENDMENTS TO THE REDEVELOPMENT PLAN
FOR THE YERBA BUENA CENTER APPROVED REDEVELOP-
MENT PROJECT AREA D-1 (PLAN CHANGE NO. 2)

1. To add subparagraph 11 to Article I, Section C, such subparagraph to read as follows:
 - II. Payment for site acquisition and the installation and construction of certain Public Facilities comprising demolition, mass excavation and bulkheading, parking structure including rough slab exhibition hall floor, and exhibition hall foundations, together with structures to accommodate streets and utilities together with reimbursement for certain City preliminary work consisting of the relocation and extension of utilities; hall service areas, common public areas, miscellaneous structures, extension of utilities, a central heating and cooling plant, and utility distribution systems; a sports arena complex including fixed seating, extension of utilities, completion of certain common public areas and attendant structures, restoration of streets, and furnishings and fixtures, together with all other works, property or structures necessary for a community center for public assembly and convention purposes.
2. To add the following paragraph to the end of Article IV, Section C, such paragraph to read as follows:

TAX ALLOCATION FINANCING

The Agency may, from time to time, issue bonds, notes, interim certificates, debentures or enter into other contractual obligations for any of its corporate purposes authorized by law. The Agency may also issue refunding bonds for the purpose of paying or retiring bonds previously issued by it.

Taxes, if any, levied upon the taxable property in the Yerba Buena Center Approved Redevelopment Project Area D-1 each year by or for the benefit of the State of California, City and County of San Francisco, any district, or other public corporation, after the effective date of the ordinance approved this Plan shall be divided as provided in Article 6, Chapter 6, Part I (the Community Redevelopment Law) of the Health and Safety Code of the State of California and Section 19 of Article XIII of the Constitution of the State of California, to wit:

(a) That portion of the taxes which would be produced by the rate upon which the tax is levied each year by or for each of said taxing agencies upon the total sum of the assessed value of the taxable property in the redevelopment project as shown upon the assessment roll used in connection with the taxation of such property by such taxing agency, last equalized prior

to the effective date of such ordinance (to wit, the assessment roll for the fiscal year 1965-1966), shall be allocated to, and when collected shall be paid into, the funds of the respective taxing agencies as taxes by or for said taxing agencies on all other property are paid (for the purpose of allocating taxes levied by or for any taxing agency or agencies which did not include the territory in a redevelopment project on the effective date of such ordinance but to which such territory has been annexed or otherwise included after such effective date, the assessment roll of the county last equalized on the effective date of the ordinance shall be used in determining the assessed valuation of the taxable property in the project on said effective date); and

(b) That portion of said levied taxes each year in excess of such amount shall be allocated to and when collected shall be paid into a special fund of the redevelopment agency to pay the principal of and interest on loans, moneys advanced to, or indebtedness (whether funded, refunded, assumed or otherwise) incurred by such redevelopment agency to finance or refinance, in whole or in part, such redevelopment project. Unless and until the total assessed valuation of the taxable property in a redevelopment project exceeds the total assessed value of the taxable property in such project as shown by the last equalized assessment roll referred to in subparagraph designated (a) hereof, all of the taxes levied and collected upon the taxable property in such redevelopment project shall be paid into the funds of the respective taxing agencies. When said loans, advances, and indebtedness, if any, and interest thereon, have been paid, then all moneys thereafter received from taxes upon the taxable property in such redevelopment project shall be paid into the funds of the respective taxing agencies as taxes on all other property are paid.

In the proceedings for the advance of moneys, or making of loans, or the incurring of any indebtedness (whether funded, refunded, assumed or otherwise) by the Agency to finance or refinance, in whole or in part, the Yerba Buena Center Approved Redevelopment Project, the portion of taxes mentioned in subparagraph (b) hereof may be irrevocably pledged for the payment of the principal of and interest on such loans, advances, or indebtedness.

3. To Amend Map 2: Land Use Plan as follows:

- a. Lots 37, 38, 39, 40, 41A, 42, and 43 in Block 3733 and lots 37, 38, 39, 40, 42, 43, 44, 45, 46, and 77 in Block 3751 are reclassified from District E, Business Services and Light Industry, to District D, Housing.
- b. Lots 1, 6, 7, 72, 89 and 90 in Block 3733 are reclassified from District C, Downtown Support to District D, Housing.

4. To amend the first paragraph of Subsection C of Section II, Project Plan by adding two footnotes to the list, Permitted Principal Use, as follows:

- a. "(10) District D uses may be developed on Lots 1, 6, 7, 72, 89 and 90 of Block 3733 only if these lots are also developed and used for commercial uses."
- b. "(11) After vacation, streets, or portions of streets, shall be classified for the same uses as the lots bordering them."

APPENDIX E

YERBA BUENA CENTER
SUMMARY OF LITIGATION

SUMMARY OF LITIGATION
INVOLVING THE YERBA BUENA CENTER PROJECT
(Status as of June 30, 1974)

TOOR vs. Romney et al., U.S.D.C., N.D., California, Civil Action #C-69-324 SAW. This was a class action brought in 1969 by prospective relocatees in the urban renewal project area to invalidate the project's Redevelopment Plan, enjoin Federal financial assistance and restrain land acquisition and demolition. The Complaint stated five causes of action--alleging that (1) there was a lack of feasible Relocation Plan and an arbitrary determination of the sufficiency of relocation assurances pursuant to 105(c)(2); (2) there were improprieties in the procedural requirements respecting the notice of hearing on the plan; (3) there was a failure to submit a Report for consideration in the approval process; (4) there was a violation of 106(g) of the Act; and (5) there was a denial of equal protection of law.

Upon review, the U.S. District Court found that the Secretary's finding with respect to the adequacy of the "assurance" under Section 105(c)(2) was arbitrarily made and not supported by the evidence of the case. The court therefore issued a Preliminary Injunction on April 30, 1970, restraining HUD from further financing and enjoining the local defendants from undertaking relocation or acquisition activities. A subsequent Relocation Plan was approved by HUD but never ruled upon by the court because the LPA and the plaintiffs stipulated to a "Consent Order" which resulted in a dissolution of the injunction. Some features of the "Consent Order" were the establishment of an Arbitration Board and the promise by the LPA to construct 1500-1800 units of low-rent housing within a three year period.

Subsequent to this "Consent Order" there were other attempts by the plaintiffs to have the project halted again. In 1972 HUD, of its own volition, initiated a thorough investigation of the project's relocation problems. Based upon that report, HUD placed some restrictions upon the LPA's activities and required a new updating of the Relocation Plan.

In October 1972, HUD approved a revised Relocation Plan and so certified to the court. Plaintiffs again contested the validity of the Relocation Plan. The court remanded the matter back to HUD to supplement the administrative record on certain matters. Prior to a decision by the court of the latest Relocation Plan, the principal parties to the action (the LPA and the plaintiffs) came to a settlement of the issues which divided them. The settlement was approved by the court and the action (save a remaining question concerning attorney's fees) was dismissed.

San Francisco Tomorrow, et al. vs. Romney. This action was brought by several community and environmental organizations and several individuals seeking injunctive and declaratory relief against the Secretary and local Director of HUD. The plaintiffs sought to have 3 urban renewal projects in the San Francisco area declared "major federal actions significantly affecting the quality of the human environment" within the meaning of Section 102(2)(c) of the National Environmental Policy Act (NEPA), 83 Stat. 852, 42 U.S.C., 4332(2)(c), and to have HUD officials enjoined from continuing to approve or finance these three projects until HUD prepared an environmental impact statement in compliance with NEPA. The action was originally filed on January 3, 1972.

On April 25, 1972, after several hearings on the complaint, and after considering the various pleadings, legal memoranda and affidavits presented, the U.S. District Court granted the defendant's motion to dismiss giving two grounds for the decision:

1. The organizational and individual plaintiffs did not possess the requisite standing to maintain the action;
2. An environmental impact statement by the HUD officials was not required for the challenged projects since all relevant Federal actions had taken place prior to January 1, 1970, the effective date of NEPA.

The plaintiffs, on April 27, 1972, filed a notice of appeal with the U.S. Court of Appeals for the Ninth Circuit, at which time the issue of standing was dropped by the defendant. On June 8, 1972, plaintiffs sought an injunction from the Ninth Circuit pending appeal. On June 16, 1972, the Appeals Court denied the request for injunction. The plaintiffs then requested a stay pending appeal from Superior Court Justice William O. Douglas as Circuit Justice for the Ninth Circuit. On July 7, 1972, Justice Douglas granted a stay pending disposition of the case by the Court of Appeals.

After concluding that NEPA does not call for retroactive application, the Court examined the chronological series of events relating to each of the two remaining projects (one project was dismissed from the case by stipulation) to determine whether or not, subsequent to January 1, 1970, some further major action significantly affecting the quality of the human environment was required of HUD in the development of either project.

Upon examination of the series of events in Yerba Buena, the court held that for the purposes of NEPA, the major Federal action terminated on December 2, 1966 when HUD executed the Loan and Grant Contract, and further concluded that the amendatory contracts increasing Federal funding to provide for the rising costs of land acquisition and relocation did not constitute "further major Federal action" and HUD monitoring of the project likewise involved no major Federal action. Appellant's reliance upon the highway cases involving staged approvals proved to be misplaced.

The series of events in West Berkeley, primarily the conversion to NDP and approval of the first action year grant on February 10, 1970, some 40 days after the effective date of NEPA, resulted in a holding by the court that the project may go forward only upon compliance with the requirements of NEPA.

Duskin vs. Alioto, et al. - This action was filed on January 31, 1972, and was entitled "Action To Recover and To Enjoin Unlawful Expenditure of Public Funds." The Agency was not named in the original Complaint but was subsequently served as a Doe and the Complaint was amended to include charging allegation against the Agency. This case is currently in the Superior Court of the State of California. The Agency's Motion for Summary Judgment was granted on five Causes of Action. The case has been set for pre-trial on August 12, 1974, and it is anticipated that a trial will be held on the remaining three Causes of Action soon after the pre-trial.

Williams, et al vs. City and County of San Francisco, Superior Court, State of California. This action was brought in July 1972 under the provisions of California Code of Civil Procedure 860 and 526a. Now consolidated with the case San Francisco Redevelopment Agency vs. All Persons, the matter is set for pre-trial conference on August 12, 1974, and it is anticipated that there will be a trial date shortly thereafter.

Del Camp Investment Co., vs. Romney, et al, U.S.D.C., N.D. California. This was an action for declaratory and injunctive relief instituted by the owner of the St. Regis hotel within the YBC project area. The plaintiff's property was condemned by the LPA in the state courts and the Agency has been successful on appeal in acquiring the hotel. Appeal has been taken to the California Supreme Court and Del Camp Investments have been unsuccessful in seeking to overturn the Condemnation Action. The Federal court case has been dismissed.

The main thrust of this action is that there was impropriety in the 90-day notice served by the LPA pursuant to the law. The plaintiff contends that the LPA was premature in its attempts to gain possession of the hotel in relation to the scheduling of construction and public improvements in the project area. Other contentions of the plaintiffs concern alleged violations of Federal, state and local law and HUD regulations and rules, i.e., (1) lack of a feasible relocation plan; (2) illegal condemnation of lands; (3) improper inclusion of plaintiffs land in the project area; (4) violation of numerous Federal regulations in the selection of the project area and adoption of the Redevelopment Plan; (5) insufficiency of the blight determination and a challenge to the state law and HUD standards on the issue of blight.

The same facts, but different legal issues, are involved in litigation in the state courts and the Federal action is being held in abeyance pending final determination of the state issues.

Rukshamani Patel et al. vs. SFRA, HUD, et al., U.S.D.C., N.C., California. This is a suit initiated by three former owners of hotels in the YBC project area, seeking to enjoin the termination or modification of certain management and lease agreements between the LPA and the plaintiff on the grounds that such termination or modification would violate the Order of the Court in the TOOR case. Request for preliminary relief was denied the plaintiffs, and the case was dismissed.

Duskin vs. Redevelopment Agency of the City of San Francisco, Supreme Court, State of California. This is a taxpayer's suit in the state courts to restrain disposition of urban renewal project lands to a developer on the grounds that the LPA violated state law and HUD regulations in establishing the disposition price of land, and that the LPA failed to hold a public hearing prior to the sale of the land. The case has been dismissed with prejudice.

815 Mission Corporation vs. SFRA, U.S.D.C., N.D., California. This was an action of a former owner of a hotel in the YBC project area for damages and attorney's fees incurred in state court actions resulting from the failure of the LPA to give a proper 90-day notice pursuant to Federal law and HUD regulations. The plaintiff has now abandoned the action.

R. B. Patel et al. vs. SFRA, Supreme Court, State of California. Plaintiffs filed three separate actions against the LPA alleging the breach of Rental Agreements for the rental of furniture and furnishings in the Knox, Jessie and Mars Hotels in the YBC area; and seeking money damages. A further cause of action alleges a breach of the management contract for the operation of the Mars Hotel. A motion for Summary Judgment by plaintiff D. R. Patel has been denied by the San Francisco Supreme Court.

Git Sin Ng vs. SFRA, Supreme Court, State of California. This action was similar to the Patel case above except that it relates to the Rock Hotel. The plaintiff has dismissed with prejudice after deciding to take her relocation payments and abandon the furniture.

Charles Capanella Co. vs. SFRA - This action was tried in the Supreme Court for the City and County of San Francisco. Plaintiff received a judgment for \$5,000.00 plus interest on his First Cause of Action. This Cause of Action alleged damages due to delay in the demolition of certain buildings in Yerba Buena Center. The Agency had requested the contractor to refrain from demolition activities until certain condemnation suits were completed.

Plaintiff also sought damages on a Second Cause of Action for delays in demolition of certain hotels in YBC. The Agency defended on the ground that the injunction in the TOOR case restrained the Agency from permitting demolition. Plaintiff was unsuccessful on this Cause of Action.

Garland vs. SFRA - This is an action in Superior Court similar to the Patel cases and it involves the Imperial Hotel. Mrs. Garland claims that the Agency breached a lawful contract for the rental furniture from her in the Imperial Hotel in the Yerba Buena Center Redevelopment Project. A Motion for Summary Judgment was filed in July 1974 and will be argued on August 8.

APPENDIX F

GEOLOGY

1. Foundation Investigation Plot Plan
2. Preliminary Earth Pressure Diagram for Shoring
3. Historical Geologic Formations

APPENDIX F₁



NOTE:

CONTOURS ARE TO CITY OF SAN FRANCISCO DATUM (SF DATUM - 1.69 FT. MSL DATUM)

REFERENCE:

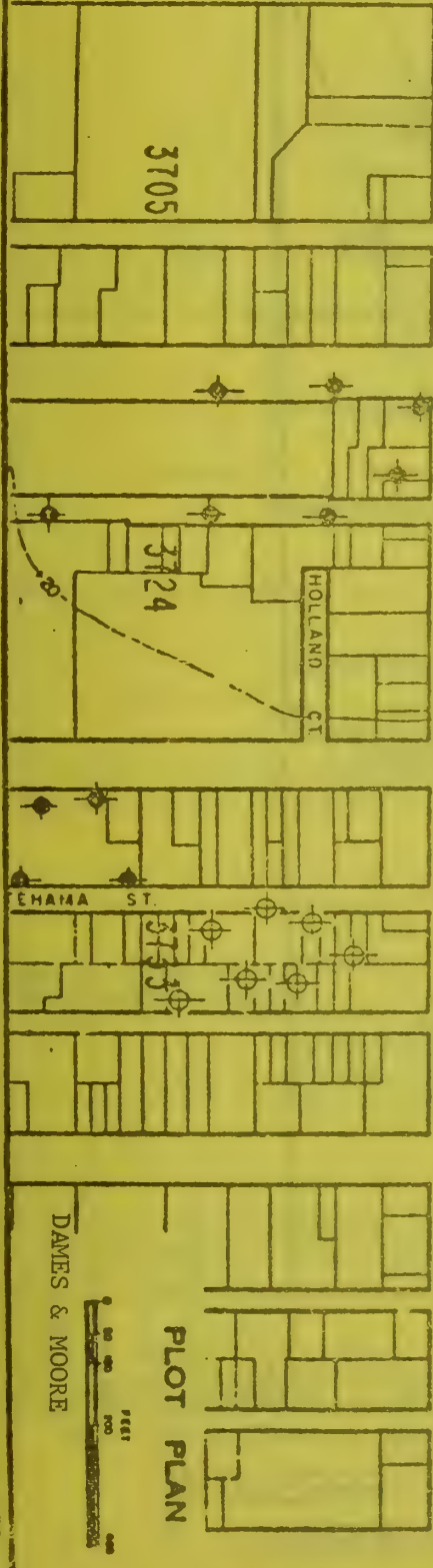
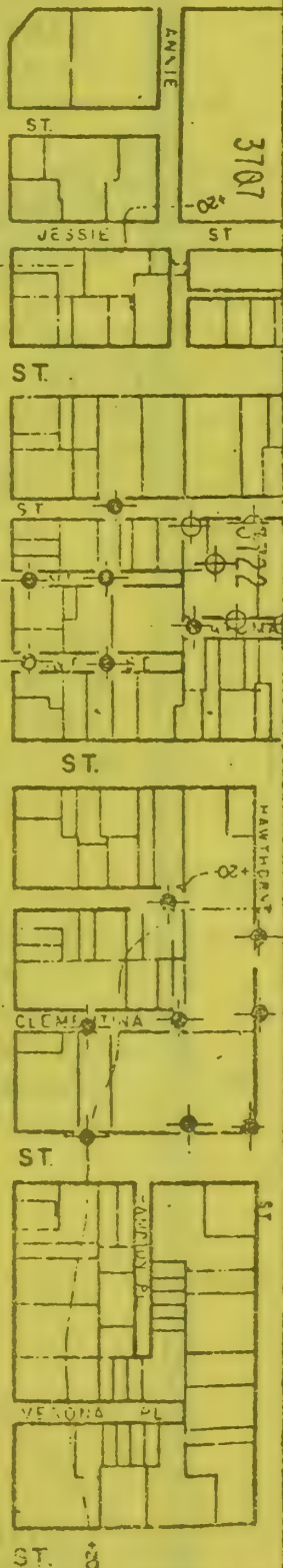
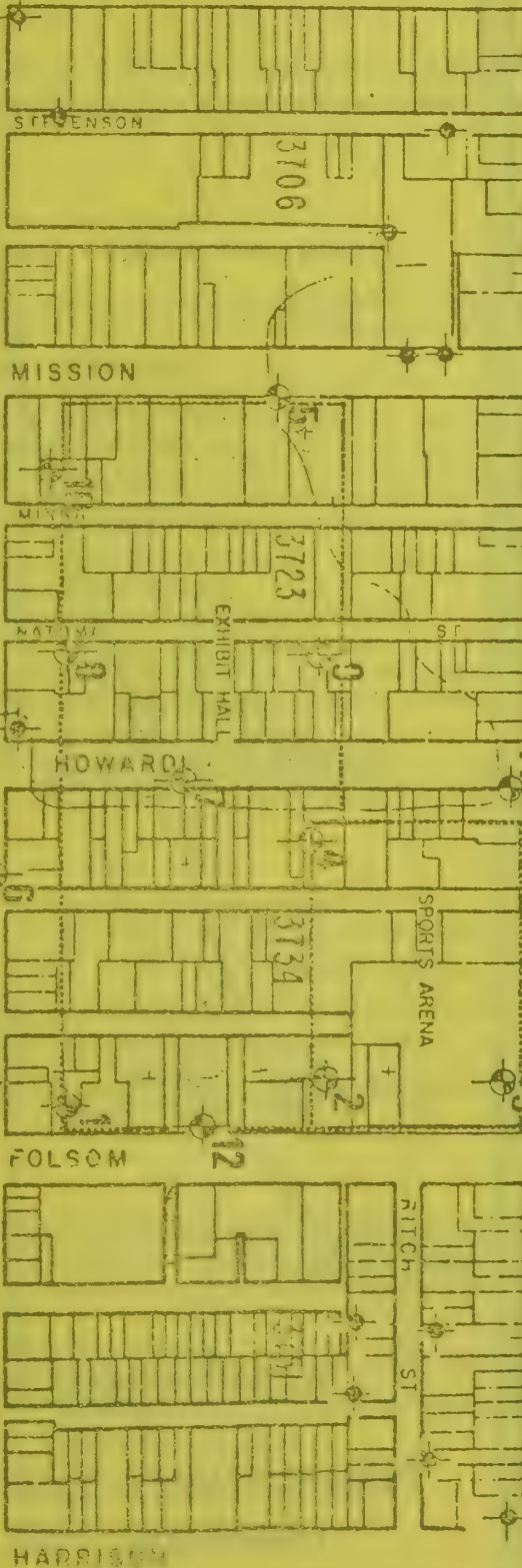
DRAWING BY SAN FRANCISCO DEPARTMENT OF CITY PLANNING FIELD. WORKING AREA AND USE STORY. SOUTH OF MARKET, WORKING AREA 2, PLANNING AREA 27, FILE 925.22, JULY, 1961.

KEY:

- BORINGS DRILLED FOR THIS INVESTIGATION
- BORINGS DRILLED BY DAMES & MOORE FOR OTHER INVESTIGATIONS
- BORINGS BY OTHERS

MARKET

ST.

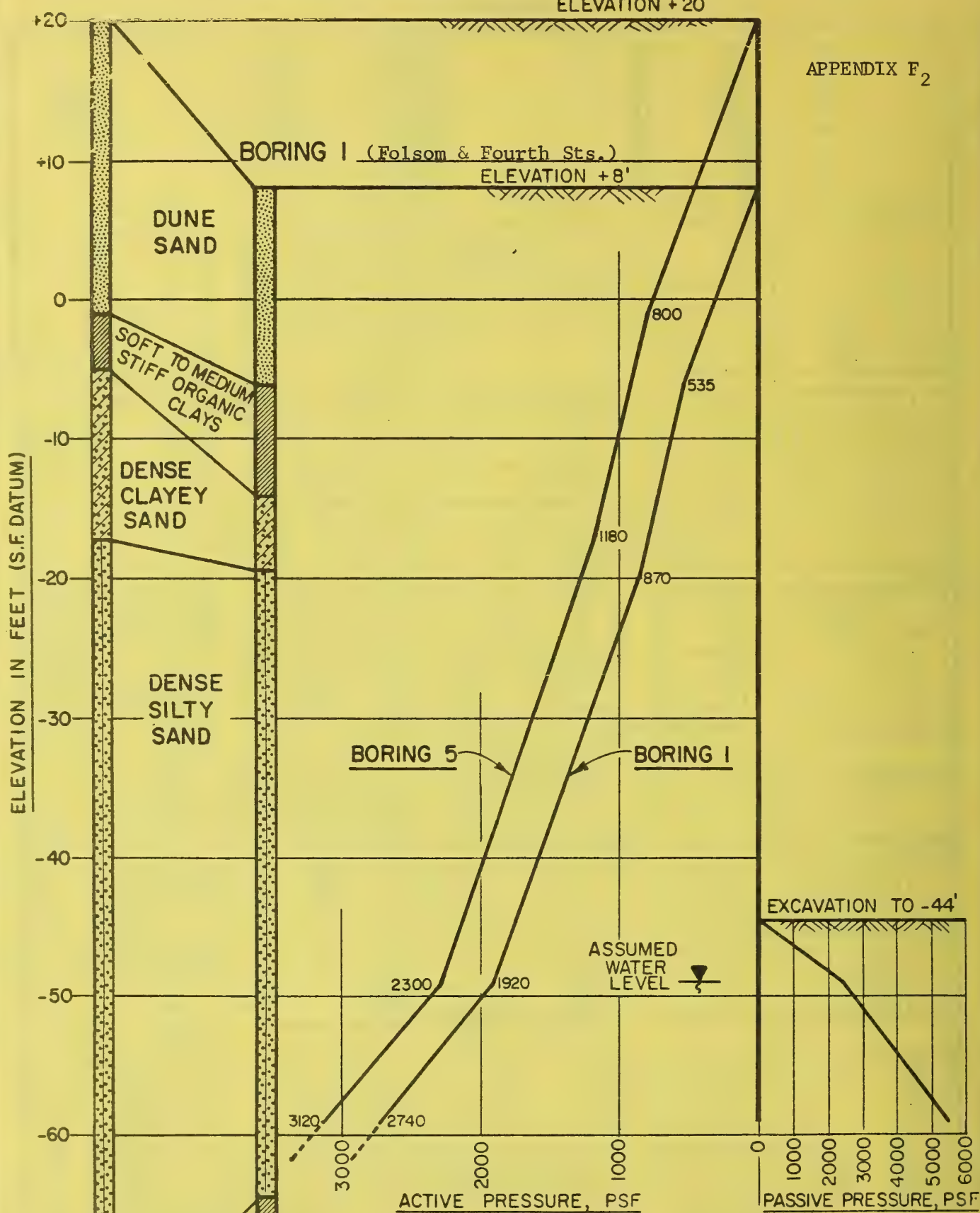


PLOT PLAN

DAMES & MOORE

BORING 5 (Mission St., between Third & Fourth Sts.)
ELEVATION +20'

APPENDIX F₂



**PRELIMINARY EARTH PRESSURE
 DIAGRAM FOR SHORING**

NOTE: PRESSURES SHOWN ARE CALCULATED EARTH

APPENDIX F3

HISTORICAL SITE GEOLOGY

MAJOR STRATIGRAPHIC AND TIME DIVISIONS OF ROCKS IN THE SAN FRANCISCO BAY AREA*

ERA	SYSTEM OR PERIOD	SERIES OR EPOCH	ESTIMATED AGES OF TIME BOUNDARIES IN MILLIONS OF YEARS**
Cenozoic	Quaternary	Holocene	0.01
		Pleistocene	2 to 3
	Tertiary	Pliocene	12
		Miocene	25
		Oligocene	40
		Eocene	60
		Paleocene	70
Mesozoic	Cretaceous	Upper (Late)	
		Lower (Early)	135
	Jurassic	Upper (late)	
		Middle (Middle)	
		Lower (Early)	180

There are two basic geologic formations found in the San Francisco area which include the older consolidated rock known as the bedrock (Franciscan Formation) and numerous unconsolidated layers above of more recent history. These rock and sediments of the San Francisco Bay Area range in age from Jurassic, 135-180 million years old, to present. The oldest exposed rocks

* Urban Environmental Geology in San Francisco Bay Region, Association of Engineering Geologists, Special Publication, Oct. 1969.

** Holmes, A., Principles in Physical Geology, 2nd ed., 1965, the Ronald Press, p. 360 (except Holocene-Pleistocene boundary, which is arbitrarily taken at 10,000 years ago).

east of the San Andreas fault are sedimentary, volcanic, and metamorphic rocks of the Franciscan Formation.*** The young unconsolidated layers above the bedrock are pleistocene and are a geological recent or even historical in age.

The bedrock Franciscan Formation is a heterogeneous assemblage of rock types, mostly sedimentary and volcanic, that accumulated on the deep sea floor in late Jurassic to late Cretaceous time. Sandstone and shale make up 80% to 90% of the formation. The remainder is predominantly volcanic rocks and minor amounts of chert and shale, conglomerate, limestone and metamorphic rocks.

*** Regional Geology Supplement Report IS-3, August 1968, pp. 3-5.

APPENDIX G

CORRESPONDENCE WITH
ROBERT L. RUMSEY, EXECUTIVE DIRECTOR
SAN FRANCISCO REDEVELOPMENT AGENCY

MITIGATING MEASURES



SAN FRANCISCO REDEVELOPMENT AGENCY

939 ELLIS STREET • SAN FRANCISCO 94109

ADDRESS MAIL TO POST OFFICE BOX 646 • SAN FRANCISCO, CALIFORNIA 94101

(415) 771-8800

March 19, 1974

Mr. James P. Jaquet
Program Manager, Area C
Department of Housing and Urban Development
One Embarcadero Center, Suite 1600
San Francisco, CA 94111

Dear Mr. Jaquet:

The following is in response to recommendations contained in your letter of January 10, 1974 and our discussion of that letter in the interim regarding areal subsidence monitoring, protection of archaeological finds, and earthquake safety in Yerba Buena Center.

Areal Subsidence Monitoring

The City and County of San Francisco, acting in the capacity of developer of the Yerba Buena Center Public Facilities, has contracted with the firm of Dames and Moore for soil engineering consultation services. The City has concurred with the recommendations of Dames and Moore that a monitoring system be established to detect possible areal subsidence due to dewatering of the Public Facilities construction site.

The monitoring system, which has not yet been designed, will permit periodic measurements to be taken at the periphery of the dewatered area. In the event that subsidence is detected outside the Public Facilities site, affected areas will be recharged to bring the ground water up to normal levels.

Protection of Archaeological Finds

This Agency will encourage and permit the rapid and orderly removal of significant archaeological finds in Yerba Buena Center, should such be found during the course of excavation. Prior to commencement of construction, we will advise the University of California at Berkeley, California State University at San Francisco, the California Historical Society, and others of the excavation schedule.

Earthquake Safety

All new construction in redevelopment projects, as elsewhere in San Francisco, is subjected to rigorous engineering review by the Bureau of Building Inspection. Such review is designed to ensure that new development is in

SAN FRANCISCO REDEVELOPMENT AGENCY

Mr. James P. Jaquet

-2-

March 19, 1974 =

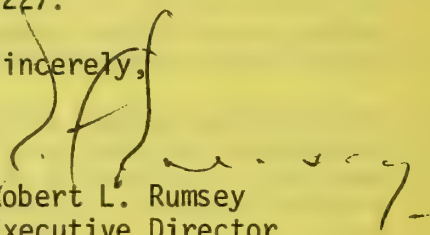
conformance with the San Francisco Building Code. The Code agrees in all essential respects with Uniform Building Code standards for Seismic Zone 3. Normally under the Code static analysis of structures is considered sufficient; however, in instances where special interpretation of the regulations or innovative structural design is involved, additional analysis is required. (For example, St. Mary's Cathedral was subjected to dynamic analysis at the request of the Bureau of Building Inspection.) Therefore, in our opinion, the normal review process under the Building Code is adequate to promote earthquake safety in new construction in Yerba Buena Center.

Under the San Francisco Building Code, developers are required to perform soils analysis. In addition, the City will make available to private developers its finding with regard to soils conditions in Yerba Buena Center.

Finally, the sequencing of construction of the Public Facilities will require the extensive use of wooden shoring during the construction period. While this shoring cannot in any sense guarantee earthquake safety, it will provide additional support and improve the earthquake safety characteristics of the Public Facilities during the vulnerable construction period.

Should you have any additional questions regarding these matters, please contact the Project Director of the Yerba Buena Center Public Facilities, Mr. Lance Burris, at 771-8800, Extension 227.

Sincerely,


Robert L. Rumsey
Executive Director

cc: Mr. Thomas J. Mellon
Chief Administrative Officer
City and County of San Francisco

9.1PM-C

Mr. Robert L. Rumsey
Executive Director
San Francisco Redevelopment Agency
Post Office Box 646
San Francisco, California 94101

Dear Mr. Rumsey:

Subject: Yerba Buena Center (R-59)
Environmental Impact Statement

In our review of the geological and archeological impacts of the proposed YBC project, it appears that there is a minor possibility of areal subsidence as the result of the initial dewatering effort. Your staff has indicated that the dewatering effort will be closely monitored and that corrective action will be taken if any subsidence is detected. In order to assure the stability of the surrounding structures, and most particularly of the historic St. Patrick's Church, we would appreciate an analysis of the preventive and corrective actions the Agency is prepared to take to mitigate against any potential negative impact from areal subsidence.

Based upon the nearby BART excavations and the uncovering of an ancient skeleton, we have reason to believe that some items of archeological significance may exist in the YBC project area. We would appreciate assurances from the Agency that appropriate study and preservation measures will be taken should such items be found.

Finally, we would like to advise you that recently revised HUD guidelines have been issued on "Earthquake Procedures for HUD Programs in Seismic Zones II and III (September 10, 1973; copy attached) SF 4541.1.

The studies performed by John A. Blume and Associates on the public facilities meet these requirements but there is no indication that similar studies have been performed for the private developments. Although the guidelines are designed for HUD housing projects and not for urban renewal areas, we recommend that they be incorporated in all future land disposition contracts in YBC and be closely monitored by the Agency to assure seismic safety beyond that required by the Uniform Building Code. We also request that

the Agency provide us with a description of the measures to be taken during construction of the public facilities to prevent structural collapse in the case of seismic activity.

Should you have any questions or concerns regarding these findings and requests, please do not hesitate to call me.

Sincerely,

Original signed by:

James P. Jaquet
Program Manager
Area C

APPENDIX H

LIQUID WASTES

1. YBC Generation of Liquid Wastes
2. Estimated Street Run-Off Pollutants
3. North Point Treatment Facilities, Total Loadings

APPENDIX H1
YBC Generation of Liquid Domestic Wastes*

Phase I - Start of Construction - June 1978

Public Parking Garage - 660,000 sq. ft. @ 33g/day/1,000 sq. ft.	= 0.022 mgd
Exhibit Hall and Meeting Rooms (ave. = 0.06 mgd); max.	= 0.530 mgd**
Third and Mission Office -- 510,000 sq. ft. @ 125 g/day/1,000 sq. ft.	= 0.064 mgd
Fourth and Mission Office 550,000 sq. ft. @ 125 g/day/1,000 sq. ft.	= 0.069 mgd
Hotel - 490 employees 25g/day and maximum of 980 guests @ 65 g/capita/day	= 0.076 mgd
(average guests - 784 for average wastes of 0.063 mgd)	
(optional Office of 510,000 sq. ft. = 0.064 mgd)	
Retail & Trade Center -- 343,000 sq. ft. @ 200 g/day/1,000 sq. ft.	= 0.069 mgd
Community College -- 7,000 sq. ft. retail @ 200g/day/1,000 sq. ft	
Plus 8,200 part-time students & employees @ 25g/ capita/day	= 0.206 mgd
Site #3 Office -- 36,000 sq. ft. @ 125g/day/1,000 sq. ft.	= 0.067 mgd
Clementina Towers -- 300 residents @ 50g/capita/day	= 0.015 mgd
Salvation Army Apts -- 50 on-site residents @100g/capita/day	= 0.005 mgd
Site #13 Office -- 275,000 sq. ft. @ 125 g/day/1,000 sq. ft.	= 0.034 mgd
Site #16 Office -- 1,000,000 sq. ft. @ 125/g/day/1,000 sq. ft.	= 0.125 mgd
Site #6 Housing -- 150 residents @ 50 g/capita/day	= <u>0.008 mgd</u>
(Optional Office of 39,000 sq. ft. = 0.049 mgd)	

Phase I Total = 1.289 mgd

* Standard unit loadings were established by Brown and Caldwell, Consulting Engineers in their "Report to the Redevelopment Agency on YBC, Hunters Point and Western Addition A-2," p. 18. Average square footage estimates have been developed for the office buildings based upon the parcel size and development standards.

** Estimates for the Exhibit Hall, Sports Arena and Theater were developed by Brown and Caldwell by surveying comparable facilities in the area and developing a comparative analysis.

Phase II - July 1978 - December 1979

Existing waste from Phase I	= 1.289 mgd
Arena (ave. = 0.10 mgd);	max. = 0.780 mgd
4th & Folsom Office -- 510,000 sq. ft. @ 125 g/day/1,000 sq. ft.	0.064 mgd
Apparel Mart - 1,086,000 sq. ft. @ 200 g/day/1,000 sq. ft.	0.217 mgd
Apparel Parking - 220,000 sq. ft. @ 33 g/day/1,000 sq. ft.	0.007 mgd
Site #15 Office - 500,000 sq. ft @ 125/g/day/1,000 sq. ft.	= 0.063 mgd
Site #17 Office - 600,000 sq. ft.@ 125/g/day/1,000 sq. ft.	= 0.075 mgd
Site #18 Office - 500,000 sq. ft.@ 125/g/day/1,000 sq. ft.	= <u>0.063</u> mgd
Phase II Total	2.558 mgd

Phase III - January 1980 and After

Existing waste from Phase II	2.558 mgd
Market Street Office -- 705,000 sq. ft. @ 125 g/day/1,000 sq. ft.	= 0.088 mgd
Theater -- (ave. = 0.01);	max = 0.090 mgd
Site #4 Housing -- 175 residents @ 50 g/capita/day	= 0.009 mgd
(Optional Office - 200,000 sq. ft. = 0.025 mgd)	
Salvation Army	
Community Center -- 20 employees @ 25 g/capita/day	= 0.001 mgd
Site #9 Housing -- 175 residents @ 50 g/capita/day	= 0.009 mgd
(Optional Office - 167,000 sq. ft. = 0.021 mgd)	
Site #10 Office -- 500,000 sq. ft. @ 125g/day/1,000 sq. ft.	= 0.063 mgd
Site #11 Office -- 100,000 sq. ft. @ 125g/day/1,000 sq. ft.	= 0.013 mgd
Site #12 Office -- 140,000 sq. ft. @ 125g/day/1,000 sq. ft.	= 0.018 mgd
Site #14 Office -- 130,000 sq. ft. @ 125g/day/1,000 sq. ft.	= <u>0.016</u> mgd
Total upon full development=	2.865 mgd

APPENDIX H₂

ESTIMATED STREET RUNOFF POLLUTANTS YERBA BUENA CENTER

<u>Loadings</u> (lbs/day)	<u>BOD₅</u>	<u>Total Solids</u>	<u>Suspended Solids</u>	<u>Phosphates</u>	<u>Kjeldahl Nitrogen</u>	<u>Bacteria</u>		
						<u>Nitrates</u>	<u>Total Coliform</u>	<u>Fecal</u>
Maximum	3.60	452	181	0.43	0.701	0.277	1,060x10 ⁹	310x10 ⁹
Average	0.75	339	136	0.32	0.526	0.208		
Low	1.83	226	90	0.21	0.350	0.138		
(mg/l)								
Maximum	214	26,390	10,556	26.6	41.0	16		
Average	161	19,793	7,916	20.0	31.0	12		
Low	107	13,195	5,270	13.3	20.5	8		

Source: Arthur D. Little, Draft E.I.R., p. V-J-4, Figure J-1; derived from data provided by
URS Research Company.

PLANT DATA
1970 CALENDAR YEAR

PLANT	SUSPENDED SOLIDS		F.O.D.		GREASE		FLOW 10 ³ M.G./Yr.
	10 ⁶ x lbs./ Year	% Removed	10 ⁶ x lbs./ Year	% Removed	10 ⁶ x lbs./ Year	% Removed	
N.P.W.P.C.P. Influent Effluent	32.7 13.4	59	44.7 29.5	34	10.5 5.6	47	23.8 23.3
A.S.W.P.C.P. Influent Effluent	9.1 3.	62	11.4 8.2	28	2.8 2.2	21	7.6 7.4
S.F.W.P.C.P. Influent Effluent	18.5 12.6	32	14.2 10.1	29	6.8 3.9	43	7.3 7.6

Source: San Francisco Master Plan for Waste Water Management, Preliminary Book of Plates, Prepared by the Department of Public Works, September 15, 1971, Plate IV-24.

AVERAGE LOADING DATA
(Supplemental)

CONSTITUENT	NPWPCP	RSWPCP	SEWPCP
FLOW (MGD)	59.0	20.2	19.2
FLOATABLES (10^3 lb/day)			
Influent	1.6	0.52	0.54
Effluent	1.2	0.39	0.36
TOTAL NITROGEN (10^3 lb/day)			
Influent	17	6.3	7.9
Effluent	15	5.9	8.9
TOTAL PHOSPHORUS (10^3 lb/day)			
Influent	14	6.0	5.0
Effluent	12	6.3	6.2
T.I.C.H.* (lb/day)			
Influent	0.18	0.11	0.10
Effluent	0.18	0.10	0.07

* Total Identified Chlorinated Hydrocarbons

APPENDIX I

SOLID DOMESTIC WASTES

1. YBC Generation of Solid Domestic Wastes
2. Mitigating Measures

APPENDIX I₁

YBC Generation of Solid Domestic Wastes*

Residential & Hotel Guests -

1,634 residents @ 2.5 lbs./capita/day X 365 days = 746 tons yr.

Employment -

population of approx. 35,528 @ 3.5 lb./capita/day X 260 days = 16,165 tons yr.

Transient Population --

daily average of approx. 8,000** @ 3.5 lb./capita/day X 365 days = 5,110 tons/yr.

Special Waste

Street Refuse - 120 lbs/capita/yr. @ approx 45,358 pop. = 2,721 tons/yr.

Sewage Residue - 54 lbs/capita/yr. @ " " " = 1,225 tons/yr.

Total annual domestic wastes = 25,967 tons/yr.

* Standard wastes per capita were developed by the California State Department of Public Health in Status of Solid Waste Management in California, 1968, p. III - 11. Standards vary according to the level of density in an area as well as by type of land use.

** The daily transient population could vary as much as from zero on days when no events are planned in the public facilities to a maximum of 71,900 if the Convention Center, Sports Arena and Theater are being used simultaneously to full capacity. The average is based upon use days and estimated attendance per event, divided by 365 days.

APPENDIX I
2



JOSEPH L. ALIOTO, Mayor

Walter F. Kaplan, Chairman
Francis J. Solvin, Vice Chairman
Stanley E. Jensen
Joe Mosley
James A. Silva

SAN FRANCISCO REDEVELOPMENT AGENCY

939 ELLIS STREET • SAN FRANCISCO 94109

(415) 771-8800

PREFERRED MAILING ADDRESS: POST OFFICE BOX 646 • SAN FRANCISCO, CALIFORNIA 94101

October 17, 1974

In reply refer to: 112-28174-128

Mr. James P. Jaquet
Program Manager, Area C
Department of Housing and
Urban Development
One Embarcadero Center
Suite 1600
San Francisco, California 94111

Dear Mr. Jaquet:

In your letter of October 1, 1974, you expressed concern for the need for greater Redevelopment Agency control over private development in Yerba Buena Center in architectural design areas relating to energy conservation and solid waste handling. While the Agency's current design review process addresses these concerns and much has already been accomplished with regard to resource management in the Yerba Buena Center Public Facilities, we recognize the desirability of placing additional emphasis on conservation issues in light of our shifting national priorities. I am therefore prepared to take the following steps:

1. Include in all future Yerba Buena Center offerings and disposition agreements design criteria which require incorporation of measures which address energy conservation and improved solid waste handling; and
2. Encourage developers with existing disposition agreements to consider what energy conservation and solid waste handling improvements can be included in any future design or in plans already under preparation.

We are assembling a compendium of energy conservation and solid waste handling measures from the materials furnished to us by Mr. Richard

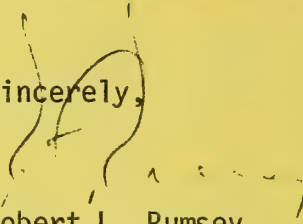
Mr. James P. Jaquet

-2-

October 17, 1974

Gryziec of San Francisco Tomorrow and will use such materials as a basis for the actions outlined above.

Sincerely,



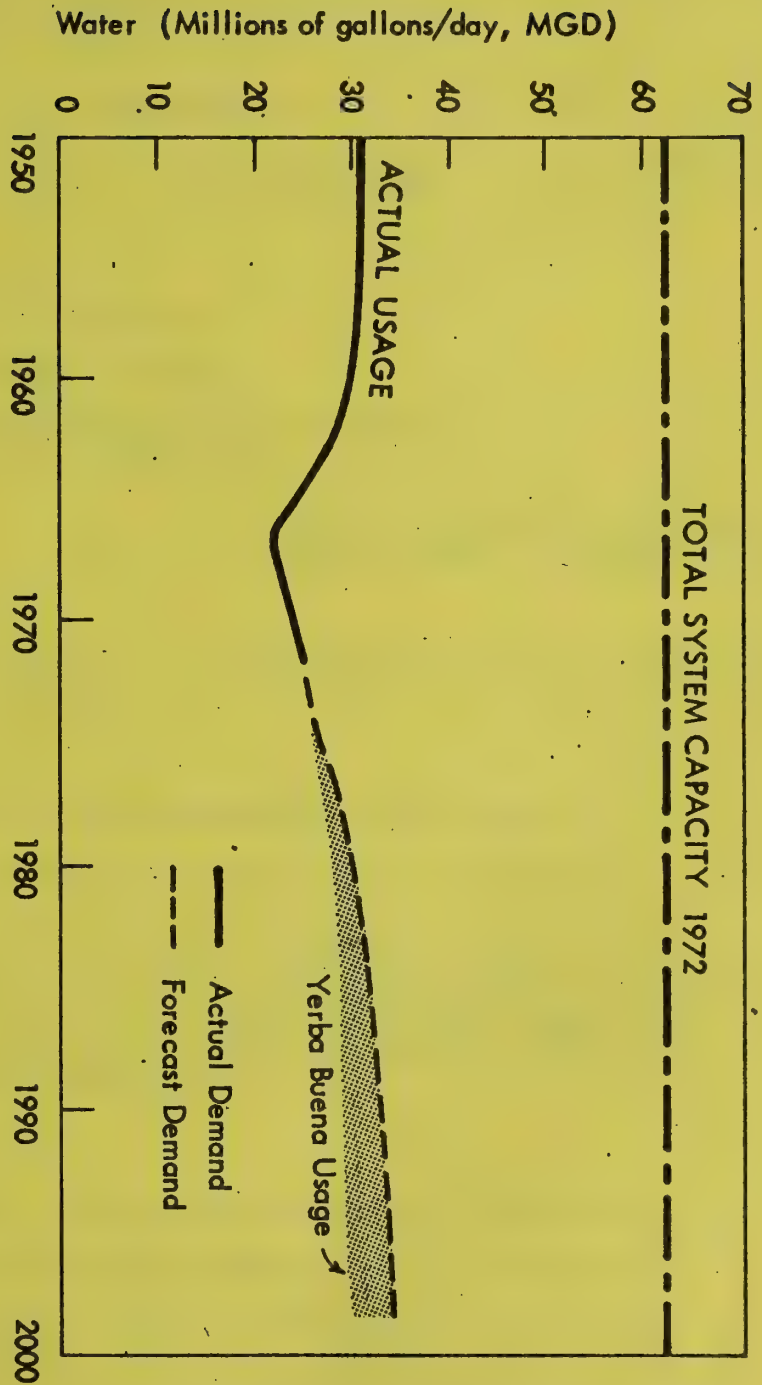
Robert L. Rumsey
Executive Director

cc: David Collins
Quintin McMahon
Edmund Ong

APPENDIX J

UTILITIES

1. San Francisco Water Demand Curve - University Mound Reservoir
2. YBC Projected Electrical Loads
3. Computation of Residential Electrical Requirements
4. San Francisco Projected Electrical Demand Curve
5. Computation of Residential Natural Gas Consumption
6. San Francisco Projected Natural Gas Consumption
7. Computation of Utility Impacts of Proposed Plan Changes



WATER DEMAND CURVE - UNIVERSITY MOUND RESERVOIR
SAN FRANCISCO

Source: Arthur D. Little, Draft E.I.R., p. V-J-18, Figure J-8; derived from data provided by
San Francisco Water Department and URS Research Company.

DUANE M. HANSON, PRESIDENT
ROGER T. LEFLER, ASSOCIATE
PHILIP T. WONG, ASSOCIATE
FRANK Y. L. WONG, ASSOCIATE

**GAYNEER
ENGINEERS**
821 HOWARD STREET
SAN FRANCISCO, CALIF. 94103
TELEPHONE 415-398-1303

EDGAR D. MORGAN, VICE PRESIDENT
CHARLES W. CASTROVINCE, ASSOCIATE
ROBERT L. MAYERSON, ASSOCIATE
LLOYD D. BYRON, ASSOCIATE

APPENDIX J₂

May 10, 1972
File NO. 10486

Pacific Gas & Electric Company
375 Mission Street
San Francisco, California 94106

Attn: Mr. R. McKillican-Power Engineer Sales
Department

re: Y.B.C. - Electrical Loads,
Sports Arena & Central Plant.

Gentlemen:

The following is a summary of the preliminary electrical loads
for the subject buildings:

I. Sports Arena

1. Estimated Maximum connected load = 4800 KVA
2. Estimated Maximum demand load = 3200 KVA

We are requesting a service voltage of 277/480 volts,
3-phase, 4-wire, at a point near Howard and Third Streets.
Please furnish us the available short circuit current at
the point of service entrance, the maximum motor for
across the line starting and the necessary transformer
vault size and location.

II. Central Plant

1. Estimated maximum connected load - 4100 KVA
2. Estimated maximum demand load = 3200 KVA

We are requesting a service voltage of 4,160 volts,
3-phase, 3-wire at a point near Shipley Street. Please
furnish us the available short circuit current at the
point of service entrance and the necessary transformer
vault size and location.

Pacific Gas & Elec. Co.
re: Y.B.C. Electrical Loads
Sports Arena & Central Plant

May 10, 1972
File No. 10486
Page 2

Enclosed are two (2) copies of the site plan for the subject building and two (2) copies of the preliminary distribution scheme for the Central Plant. Please return one (1) copy of the site plan and distribution scheme, with your comments, to our office. Your prompt action will be greatly appreciated.

Very truly yours,

SAYNER ENGINEERS

A handwritten signature in dark ink, appearing to read "Lawrence S. Wolff", with a long horizontal flourish extending to the right.

Lawrence S. Wolff

cc. Alan Williams/McCue, Boone, Tomsick

enclosures (4)

LSW:kd

ANE M. HANSON, PRESIDENT
D. D. MORGAN, VICE PRES.
DYD B. BYRON, ASSOCIATE
GER T. LEFLEN, ASSOCIATE
RLES W. CASTROVINCE, ASSOCIATE
BERT J. MAYERSON, ASSOCIATE

GAYNER ENGINEERS

1055 MARKET STREET
SAN FRANCISCO, CALIFORNIA 94103
PHONE 626-1050

April 27, 1972
File Number 10452

Pacific Gas and Electric Company
375 Mission Street
San Francisco, California 94106

Attention: Mr. R. McKillican
Power Engineering Sales Department

Re: Y.B.C. Service and Load
Requirements.

Gentlemen:

In accordance with our meeting of April 20, 1972, the following is a summary of preliminary electrical loads for the subject buildings:

I. GARAGE

	<u>Connected Load</u>	<u>Max. Demand Load</u>
1. Lighting	350 KW	350 KW
2. Conv. Power	17 KW	8 KW
3. H. and V.	3,300 KW	2,640 KW
4. Elev. and Escal.	190 KW	95 KW
5. Plumbing	150 KW	120 KW
Sub Total	4,000 KW (approx.)	3,200 KW (approx.)

II. EXHIBIT HALL

	<u>Connected Load</u>	<u>Max. Demand Load</u>
1. Lighting	3,400 KW	3,400 KW
2. Floor Power	14,300 KW	5,110 KW
3. Conv. Power	150 KW	75 KW
4. H. and V.	1,300 KW	1,000 KW
5. Plumbing	450 KW	360 KW
6. Elev. and Escal.	100 KW	50 KW
Sub Total	19,700 KW (approx.)	10,000 KW (approx.)

III. MEETING HALL

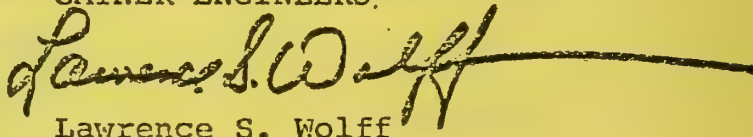
	<u>Connected Load</u>	<u>Max. Demand Load</u>
1. Lighting	340 KW	340 KW
2. Conv. Power	25 KW	13 KW
3. H. and V.	240 KW	192 KW
4. Plumbing & Kitchen	1,000 KW	850 KW
5. Elev. and Escal.	100 KW	50 KW
Sub Total	1,700 KW (approx.)	1,500 KW (approx.)
<u>TOTAL</u>	<u>25,400 KW</u>	<u>14,700 KW</u>

We are requesting a 4,160 volt, 3-phase, 3 wire service, located on Howard Street, approximately 250 feet West from Third Street. Two (2) prints each of Drawings #1 through #10 inclusive and MP-1, are enclosed for your use together with a preliminary service distribution for the subject buildings. Please return one (1) set of prints to our office with your comments. In addition, we are requesting the available short circuit current at the point of service entrance and the largest motor for across the line starting.

It is anticipated that the service design must be finalized by the last quarter of 1972, so that our contract schedule can be met. Your immediate attention to the above will be greatly appreciated.

Very truly yours,

GAYNER ENGINEERS.


Lawrence S. Wolff

LSW:lp

cc: Mc Cue, Boone, Tomsick
Attention: Alan Williams

Source: URS Research Company, Yerba Buena Center Raw Utilities Data.

APPENDIX J3

COMPUTATION OF RESIDENTIAL UTILITY REQUIREMENTS

Electric

Kilowatt Demand Attributable to 400 Residential Units

1. Estimated kilowatt-hours per dwelling unit per month.

Lighting, Refrigeration, Cooking & Sm. Appliances - 200 Kwh

Offices & General 20 "

Elevators 25 "

Ventilating Fans, Hallway Lighting, etc. 15 "

Water Pumps 10 "

Transformer & Line Losses 9 "

Total/DU/Month 279 Kwh

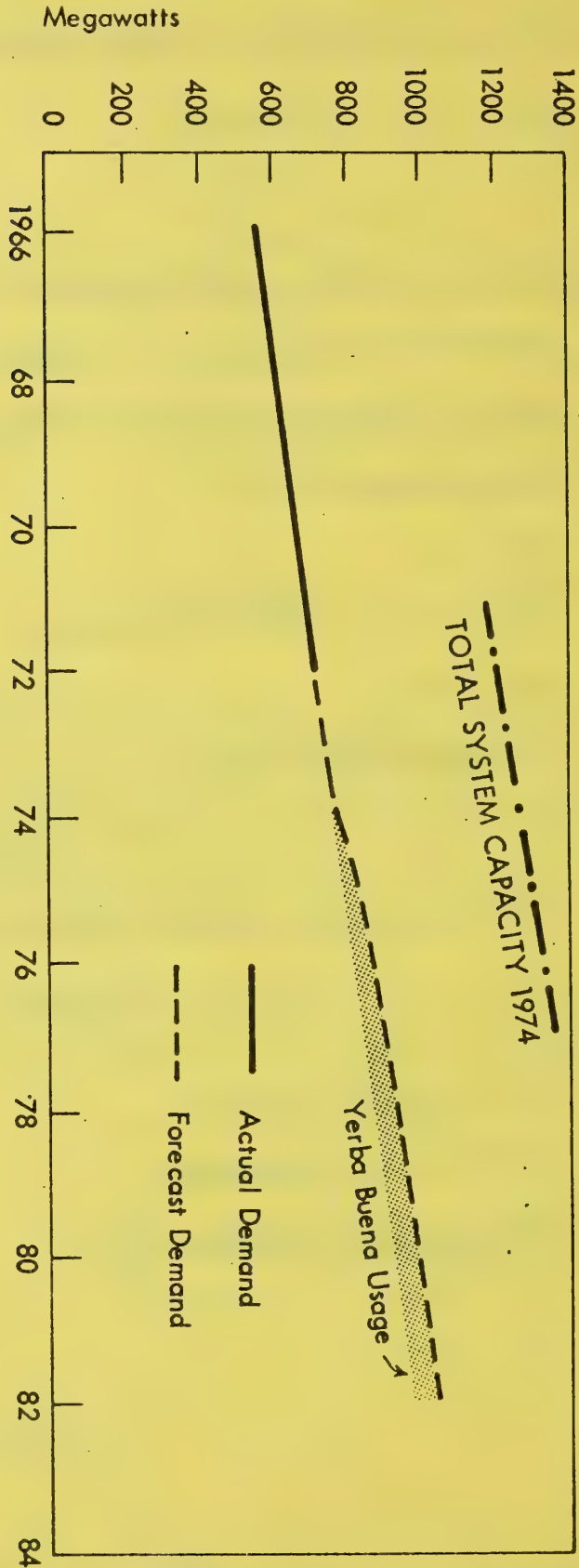
Total for 400 DU's = (279 Kwh) (400 DU's)

= 111,600 Kwh/Month

2. Total residential KW demand.

KW Demand @ 2.55 watts/Kwh

$$= \frac{2.55 (111,600)}{1,000} = 285 \text{ KW}$$



DEMAND CURVE - ELECTRICAL DISTRIBUTION SYSTEM
TOTAL SAN FRANCISCO

Source: Arthur D. Little, Draft E.I.R., p. V-J-12, Figure J-5; derived from data provided by Pacific Gas and Electric Company and URS Research Company.

APPENDIX J5

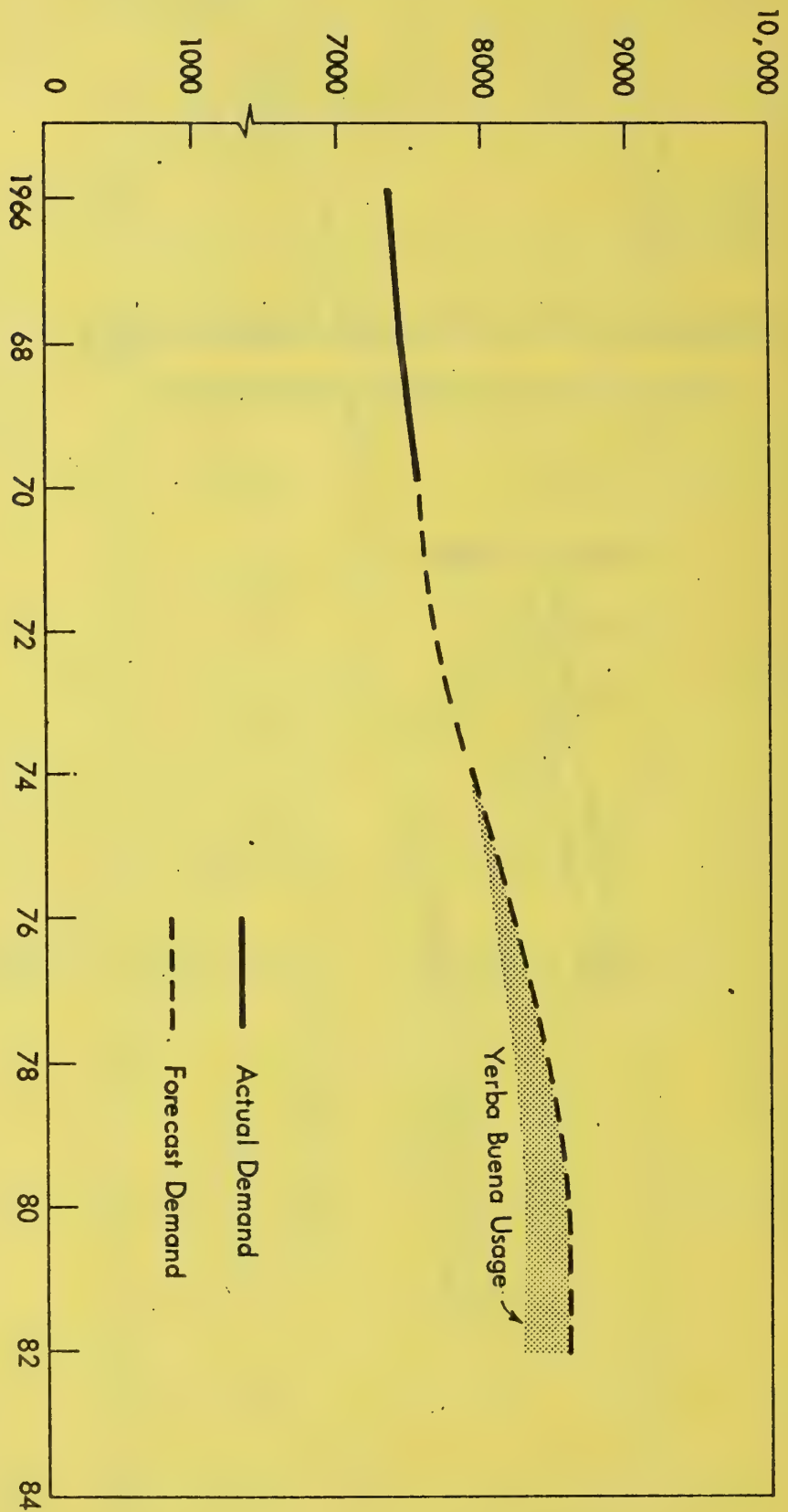
Natural Gas

Consumption Attributable to 400 Residential Units:

Estimated consumption per dwelling unit:

Cooking	-	5.5 ccf
Domestic Hot Water	-	9.5 "
Clothes Dryer	-	3.3 "
Space Heating	-	<u>35.2 "</u>
Total DU/Mo.		53.5 ccf
" " /Yr.		64.2 Mcf
Total Residential		64.2 (400) = 25.68 MMcf

Natural Gas. (Millions of cubic feet/year, MCF/yr)



DEMAND CURVE - NATURAL GAS DISTRIBUTION SYSTEM
SOUTH OF MARKET STREET, SAN FRANCISCO

Source: Arthur D. Little, Draft E.I.R., p. V-J-4, Figure J-1; derived from data provided by Pacific Gas and Electric Company and URS Research Company.

APPENDIX J7

POTENTIAL UTILITY IMPACT OF PROPOSED PLAN CHANGES

(1) Hotel demands w/ 490 employees and average of 784 guests:

water - employees @ 20 gpd/capita + guests @ 50 gpd/capita	= 0.049 mgd
electricity - 279 kwh/room @ 700 rooms, and 2.55 watts/kwh	= 498 KW
gas - 64.2 Mcf/room/yr @ 700 rooms	= 44.9 MMcf/yr.

Office building (on hotel site) of 510,000 sq. ft. w/ 2,550 employees:

water - 20 gpd/capita	= 0.051 mgd
electricity - 4.7 KW per 1,000 sq. ft.	= 2,397 KW
gas - @ 36.5 Mcf per 1,000 sq. ft./yr.	= 18.6 MMcf/yr.

(2) 400 Housing units w/approx. 500 residents

water - @ 50 gpd/capita	= 0.025 mgd
electricity - 279 Kwh/unit @ 2.55 watts/Kwh	= 285 KW
gas - 64.2 Mcf/unit/yr.	= 25.68 MMcf/yr.

Three office buildings (on housing sites), totaling
397,000 square feet, w/approx. 1,985 employees:

water - @ 20 gpd/capita	= 0.40 mgd
electricity - @ 4.7 KW per 1,000 sq. ft.	= 1,866 KW
gas - @ 36.5 Mcf per 1,000 sq. ft./yr.	= 14.5 MMcf/yr.

APPENDIX K

REPORT ON THE ARCHITECTURAL SIGNIFICANCE OF EXISTING
STRUCTURES IN THE YERBA BUENA CENTER AREA, SAN FRANCISCO

Paul V. Turner

10 September 1974

The major purpose of this report, as requested by the Dept. of Housing and Urban Development, is to make an architectural assessment of the existing buildings in the Yerba Buena Center project area of San Francisco, specifically in terms of their qualifications for inclusion on the National Register. I was asked to do this very quickly, so it has been impossible to conduct intensive research or examine any of the buildings in great detail. As a result, this report will be brief and general, essentially just an account of my impressions and reactions, rather than a fully-documented and factual study. Nevertheless, I believe my first reactions are for the most part reliable, and would be supported by a more complete study.

From the beginning, it was apparent that whereas several buildings within the project area possess some architectural interest of one sort or another, only two buildings stand out as having sufficient interest or quality to justify even consideration for the National Register--these two being the Jessie St. Substation and St. Patrick's Church. So this report will concentrate on these two buildings.

The criteria for inclusion on the National Register (as stated in "Procedures for the Protection of Historic and Cultural Properties," formulated by the Advisory Council on Historic Preservation in February 1973) suggest a number of varied categories

of qualifications. But the passages which are applicable to the buildings in question here, are the following:

The quality of significance in American history, architecture, and culture is present in districts, sites, buildings, structures, and objects of State and local importance that possess integrity of location, design, setting, materials, workmanship, feeling and association, and: That embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction. . .

St. Patrick's Church

St. Patrick's Church, on the north side of Mission Street between Third and Fourth Streets, is without doubt an important landmark of early San Francisco. Built in 1872, it is one of the oldest existing churches in the city; and although the nave and apse were destroyed in the 1906 fire and then rebuilt, the main facade and its central tower survived, and when viewed from the front, the building can be appreciated essentially as it existed originally. In any case, the part rebuilt after 1906 is, in my opinion, quite compatible with the original portion--despite its use of a different material, reinforced concrete--and taken as a whole, the church is a very pleasing simplified Gothic Revival structure.

Despite this, I have some reservations about recommending this building for the National Register. The National Register statement of criteria referred to above specifies that in the case of churches, their religious nature per se does not enhance their qualifications (to be included on the Register, it states, a church

must "derive primary significance from architectural or artistic distinction or historical importance.") And whereas this church is a pleasing and valuable example of 19th-century architecture, in my opinion it does not possess unique or extraordinary architectural properties which would distinguish it from other similar structures in the area (such as Old St. Mary's, on Grant and California Streets, originally built in the 1850's, which reveals a very similar interpretation of the Gothic Revival style--and which, in fact, could have been the prototype for St. Patrick's.

Thus my inclination is not to recommend St. Patrick's for the National Register, despite the fact that it is clearly a valuable part of San Francisco architecture and history, fully worthy of preservation and maintenance.

The Jessie Street P. G. & E. Substation

On the other hand, the P. G. & E. Substation--located to the side of St. Patrick's Church, on Jessie St. between Third and Fourth--possesses precisely those qualities of architectural distinction which are suggested by the National Register criteria. It is an important work of a major architect, exhibiting unusual and significant architectural characteristics; it has an important place in the local history of the building-type to which it belongs; and it possesses that impressive and monumental quality which, over time, can imbue a building with civic and historic significance in the eyes of the public. Indeed, it seems likely that this building would be much more widely known and appreciated than it is, if it were not for the fact that it was virtually hidden from view until very recently when the structures around it were razed.

The precise history of the stages of design and construction

of the Substation is rather complex, and need not be recounted in detail here. The first electrical substation on this site was built in 1881, and was redesigned by Willis Polk in 1905; after the 1906 earthquake and fire, Polk produced a new and more ambitious design which was executed, in a couple of stages, between 1906 and 1909. There are a number of unresolved questions about the precise relationship and chronology of the various stages of the design and execution. But the important fact is that the building (and in particular its Jessie St. facade) was designed by Polk as an integral and monumental whole, and that it reveals clearly the architectural concerns which preoccupied him at this stage of his career.

Willis Polk is generally recognized to be one of the three or four most significant architects in the Bay Area, and in California, in the 1890's and the early decades of the 20th century. At various points in his career he was willing to experiment with new methods of design, and as a result his work exhibits a number of different styles--ranging from his early domestic work in the "Shingle Style," to his unprecedented glass-walled Hallidie Building of 1916, probably the single most significant building (from an architectural point of view) in the Bay Area.

Less well known, however, is the style which Polk developed in the years immediately following the turn of the century--a style loosely based on Classical and Renaissance prototypes, and reflecting a general tendency toward Classical Revivalism in American architecture and planning during this period. Polk, however, handled this style in an imaginative and powerful way which distinguishes it from mere revivalism. And in my opinion the Jessie St. Substation is perhaps the best example of this quality of bold imagination in Polk's handling

of this Classical style.

The program of this commission, calling for a large simple mass and unencumbered wall-surfaces, gave Polk the perfect opportunity to concentrate on an eminently Classical problem: the design of a wall, as an abstract and highly sophisticated composition of architectural elements. It is not necessary to describe here all of the subtle and imaginative relationships between the elements comprising this facade--the large arch, the seven elegantly detailed windows at the right, the smaller doorway with its consoled entablature supporting a sculptural grouping of putti with garlands, the cornices and dentil-courses at the top of the facade, and the expanses of the plain brick wall itself. Any observer, I believe, can begin to appreciate and enjoy the proportions and unusual relationships between the parts of this facade while looking at it for a while. In fact, it could be thought of as an excellent case-study of the monumental possibilities in the design of a mere wall.

There are other ways in which this building is of architectural significance--for example in the fact that it was apparently the first case in which the P. G. & E. Co. decided to make a substation the opportunity for serious architectural design (a decision which had far-reaching importance for the design of other such structures in this area ever since). But I believe the major factor compelling its recommendation to the National Register is its innate architectural quality, and its potential for enhancing the visual environment of its neighborhood, now that--ironically--the buildings which used to hide it from view have been leveled and it can be seen and appreciated by the public.

Additional Comments

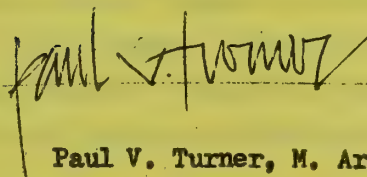
The preceeding remarks about the Jessie St. Substation contain an implication, which others might disagree with, but which I might state more explicitly here: i.e., that it is essentially only the facade of this building which is of real architectural significance. Polk himself, as I have suggested, seems to have viewed the architectural problem primarily as the design of a single monumental wall (an attitude thoroughly preceded in Classical and Renaissance traditions--though less familiar to us in the 20th century). As a result, the value and beauty of this facade would remain intact, I believe, even if the rest of the structure were taken down. I mention this because it leads to a couple of observations which I would like to add here, despite the fact that they fall outside the stated purpose of this report, and have to do with design proposals rather than strictly historical evaluation. As such, I offer them gratuitously and with apologies for their presumption. But from a realistic point of view, it is obvious what problem we are facing, regardless of the architectural significance of this building, since it is slated for demolition in the present Yerba Buena Center plans. Thus, I would like to suggest that if it were possible to preserve only the facade of the building, I for one would not consider it a disastrous or unacceptable compromise.

Indeed, one of my strongest reactions, while studying this building and its site, and visualizing the general outlines of the Yerba Buena Center, was that even if the rest of the building came down, the facade itself, free-standing (and presumably reinforced on its back side for structural stability) could be an extremely

powerful and impressive form. The mall which is to connect Market Street with the Yerba Buena Center itself could then pass through the various apertures in this free-standing facade (and in fact it appears that the seven monumental windows, just by coincidence, are at approximately the same level as the projected elevated section of the mall at that point). Walking around, and through, the great monumental facade, could create an exciting spatial and sculptural experience, enlivening the mall, and letting people see architecture in a new and playful way--while at the same time preserving the essential nature of this important design.

Whether or not this specific proposal has any merit, it is certain that some way should be found to preserve the Jessie Street Substation--facade or all--since it is one of the most impressive and elegant examples of Classical design to be found in this area.

Respectfully submitted,

A handwritten signature in dark ink, appearing to read "Paul V. Turner", is written over a horizontal line.

Paul V. Turner, M. Arch., Ph. D.
Ass't Prof. of Architectural History
Stanford University
10 September 1974

Addendum

Following is a list of other buildings in the Yerba Buena Center project area which, while not in my opinion qualified for the National Register, possess some architectural interest worthy of being noted.

The Jessie Hotel, 179-81 Jessie Street. Designed in 1912, by the Reid Bros. architectural firm, this was originally used as the housing quarters for the servants at the Palace Hotel. The facade, constructed of concrete treated to simulate ashlar stone, is an unusually elegant Renaissance-style design.

Three Office Buildings, corner of Mission & Third Streets.

These three buildings, all built soon after the 1906 fire, are interesting examples of commercial architecture of the period, but are probably less significant individually than they are as a whole (that is, as an urbanistic ensemble, preserving a whole commercial corner essentially as it was originally.

Individually, the two most interesting of the buildings, in my opinion, are: 710 Mission (the N-W corner), with its richly ornamented upper stories; and the simpler building on the N-E corner, with its wide "Chicago window" proportions, and its unusual iron brackets at the fifth floor level.

Senior Activities Center (originally, Police Station), Fourth Street between Clara & Shipley Streets. Built in 1925, this building is a pleasing example of the imaginative "Spanish Revival" style popular at this time--combing some elements of the California Missions, with lavish ornamental features inspired by the "Churriguerresque" phase of Spanish Baroque architecture.

Examples of "Art Deco" architecture. There are several interesting (if not superlative) examples of the "Art Deco" or "Moderne" style

popular in the late 1920's and 1930's. The best of these is 244 Stevenson Street, an exceedingly narrow office building (probably built in the late 20's), with amusing cubistic bas-relief decoration at the bottom and top of its facade.

On Harrison Street, between Second and Third Streets, are three small industrial buildings (653, 657 & 665 Harrison), all probably dating from the 1930's, which are nice, simple examples of a later version of the "Moderne" style, using streamlining and other motifs derived largely from European "International Style" architecture.

Finally, at 315 Fourth Street (taking up the whole block between Folsom and Shipley) is a charmingly naive structure (built in 1929, as a meat company, in which capacity it is still functioning), which combines "Art Deco" and Gothic Revival motifs, all greatly simplified, and all cast into the reinforced concrete structure.

S. E. Massengill Pharmaceutical Co. (now used by the S. F. Dept. of Health), 250 Fourth Street. An example of the International Style as interpreted in an ordered, almost Classical way popular in America in the late 1930's and 1940's.

"Place of New Beginnings." Adjacent to the preceeding building, on Fourth Street, this is a Spanish Revival design probably dating from the 1920's, and employing tiles, arched openings and other "Spanish" elements--but not as sucessfully as the Senior Activities Center farther down the street.

APPENDIX L

RELOCATION

1. Description of Relocation Benefits and Assistance
2. Past record of YBC Business Relocation

Relocation Benefits and Assistance

The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 requires that the following relocation benefits and assistance be made available in all renewal and neighborhood development projects.

A. Relocation Payments. The Act provides for the following types of relocation payments:

1. Families and Individuals. Families and individuals displaced on or after January 2, 1971, may be eligible for:
 - a. Payment for moving and related expenses. The displaced person may elect to receive either:
 1. Payment for actual reasonable moving expenses; or
 2. A fixed moving expense allowance not to exceed \$300 and a dislocation allowance of \$200.
 - b. Payment to assist in obtaining a replacement housing unit. This may be either the payment described in Paragraph 1 or 2 below.
 1. A payment to displaced homeowners, not to exceed \$15,000 and covering the following:
 - a. The difference, if any, between the acquisition payment made by the local agency and the cost of a comparable suitable replacement housing unit;
 - b. An amount to compensate the displaced homeowner for the present worth of any loss of favorable financing; and
 - c. An amount to compensate the displaced homeowner for reasonable closing costs incident to the purchase of a replacement housing unit.
 2. A payment to displaced tenants and certain others which may not exceed \$4,000 and which may be either:
 - a. A payment to assist the displaced person in making a downpayment toward the purchase of a replacement housing unit; or
 - b. A payment to assist the displaced person in the rental of a replacement housing unit, for a period not to exceed 4 years.

2. Business Concerns (Including Nonprofit Organizations and Farms). Business concerns displaced on or after January 2, 1971, may be eligible for either:

- a. Payments to cover the following within certain limitations:

1. Actual reasonable moving expenses.
2. Actual direct loss of tangible personal property, and
3. Actual reasonable expenses in searching for a replacement business, or

- b. A fixed payment equal to the business concern's average annual net earnings, but not less than \$2,500 nor more than \$10,000, if it is determined that the business cannot be relocated without a substantial loss of its existing patronage and it is not a part of a chain operation. In order to be eligible for a fixed payment, a business must have either:

1. An average annual gross receipts of at least \$2,000; or
2. An average annual net earnings of at least \$1,000; or
3. Contributed at least 33 1/3% of the average total annual income of the owners.

B. Relocation Assistance. The Act requires each local agency to provide a relocation assistance advisory program that will:

1. Determine the needs of displaced persons and business concerns for relocation assistance.
2. Provide current, complete, and continuing information on the availability of suitable relocation resources, both residential and commercial.
3. Assure that suitable replacement housing units will be available, prior to displacement, to persons displaced (see Paragraph 5c).
4. Assist displaced business concerns in obtaining and becoming established in a suitable replacement location.
5. Supply information to those displaced concerning Federal and State housing programs, disaster loan programs, and other Federal and State programs offering assistance to displaced persons and business concerns.
6. Provide other advisory services to displaced persons and business concerns in order to minimize hardships.

Additionally, under the new Act, relocation assistance advisory services are also to be provided to persons and business concerns occupying property adjacent to the area where project or program activities are being carried out, when it is determined that they have suffered substantial economic injury as a result of these activities.

- C. Assurance of Availability of Housing. One of the major provisions of the Act is the Section 210 requirement for assurance of availability of housing prior to displacement. No project, program or activity involving displacement will be approved by HUD until satisfactory assurances of availability of housing are received from the local agency. After approval, the local agency will be required to take constructive steps to accord with its assurances and to manage its relocation program so that sufficient lead time is provided between the commencement of the real property acquisition process (or the displacement-causing activities) and the undertaking of other project activities so that every individual or family that is displaced will have the opportunity to move to comparable decent, safe, and sanitary replacement housing which is adequate in size, within their financial means, and available on a nondiscriminatory basis.

APPENDIX L2
YERBA BUENA CENTER

BUSINESS CONCERNS RELOCATED FROM JANUARY 2, 1971 THRU JUNE 30, 1973

Relocated Within City - 63

<u>Type Business</u>	<u>Number</u>	<u>Having Lost Employees</u>	<u>Remained The Same</u>	<u>Having Gained Employees</u>	<u>Gained After Losing</u>
Manufacturing	5	1	3	1	0
Professionals	6	0	5	1	0
Wholesale/Retail	37	1	34	1	1
Non Profit Organizations	4	0	4	0	0
Mom and Pop Stores	1	0	1	0	0
Business or Personal Services	<u>10</u>	<u>2</u>	<u>2</u>	<u>4</u>	<u>2</u>
TOTALS	63	4	49	7	3

Relocated Outside City - 27

Manufacturing	3	2	1	0	0
Professionals	1	0	1	0	0
Wholesale/Retail	14	2	4	6	2
Business or Personal Services	<u>9</u>	<u>0</u>	<u>8</u>	<u>1</u>	<u>0</u>
TOTALS	27	4	14	7	2

DEFINITIONS

Manufacturing - Light, heavy industrial manufacturing including garment manufacturing

Professionals - Doctor, Lawyers, Accountants, Architects

Wholesale/Retail - Small, medium or large distributors, wholesalers or retail merchants

Non-Profit Organizations - Any non-profit organization including storefront churches

Business or Personal Services - Barbers, Bars, Hotels, equipment or machinery repair operations, outdoor advertising, etc.

Mom and Pop Stores - Family run grocery, cafes, laundry or retail operations

YERBA BUENA CENTER

DISCONTINUED BUSINESS CONCERNS FROM JANUARY 2, 1971 THRU JUNE 30, 1973

<u>Type of Business</u>	<u>Number</u>	<u>Reasons Discontinued</u>		
		A	B	C
Manufacturing	2			2
Non-Profit Organizations	2		2	
Business or Personal Services	12	6	2	4
Wholesale/Retail	10	2	4	4
Mom and Pop Store	<u>19</u>	1	2	<u>16</u>
TOTALS	45	9(a)	10(b)	26(c)

Reasons for Discontinuing

a - Retirement/Death

b - Marginal operation dependent on income from immediate area

c - Economically infeasible to reestablish operations

APPENDIX M

NOISE

1. Noise Level and Relative Loudness of Typical Outdoor Environments
2. Current HUD Noise Criteria for Housing
3. Department of Transportation Noise Standards
4. Qualitative Description of L_{DN} Measurements
5. Diagram of Instrument Set-up
6. Photographs of Measurement Locations
7. Graphs of Measurement Readings

Appendix M₁

Noise Level and Relative Loudness of Typical Noises in Indoor and Outdoor Environments*

L _e (dBA)	Subjective impression	Community ¹ (outdoor)	Home or industry (indoor)	Relative loudness (human judgment of different sound levels)
130		Military jet aircraft takeoff with afterburner from air- craft carrier at 50 ft (130 dBA)		32 times as loud
120	Uncomfortably loud	Jet boat at takeoff power under flight path at 200 ft (118 dBA)	Oxygen torch (121 dBA) Riveting machine (110 dBA). Rock-n-roll band (108-114 dBA)	16 times as loud
110		Same jet flyover at 1,000 ft (103 dBA). Boeing 707, DC-8 at 6,080 ft before landing (106 dBA). Bell J-2A helicopter at 100 ft (100 dBA)		8 times as loud
100	Very loud	Boeing 737, DC-9 at 6,080 ft before landing (97 dBA). Motorcycle at 25 ft (90 dBA)	Newspaper press (97 dBA)	4 times as loud
90		Car wash at 20 ft (89 dBA). Prop. plane flyover at 1,000 ft (88 dBA). Diesel truck, 40 mph at 50 ft (84 dBA). Diesel train, 45 mph at 100 ft (83 dBA). Power mower at 25 ft (85 dBA)	Food blender (88 dBA) Milling machine (85 dBA) Garbage disposal (80 dBA)	2 times as loud
80	Moderately loud	High urban ambient sound (80 dBA). Passenger car, 65 mph at 25 ft (77 dBA). Freeway at 50 ft from pave- ment edge 10 A.M. (76 ± 6 dBA)	Living room music (76 dBA) TV-audio, vacuum cleaner (70 dBA)	Reference loudness
70			Cash register at 10 ft (65-70 dBA). Electric typewriter at 10 ft (64 dBA). Dish- washer, rmse at 110 ft (60 dBA). Conversation (60 dBA)	1/2 as loud
60		Air-conditioning condensing unit at 15 ft (55 dBA). Large transformers at 100 ft (50 to 60 dBA)		1/4 as loud
50	Quiet	Bird calls (44 dBA). Lower- limit urban daytime amb- ient noise (40 dBA)		1/8 as loud
40		[Scale interrupted]		1/16 as loud
10	Just audible			
0	Threshold of hearing			

* Numbers in parentheses are A-weighted levels.

*Source: "Noise Assessment Guidelines - Technical Background,"
U.S. Department of HUD, Office of Research and Technology,
TE/NA-172, 1971.

CHART: EXTERNAL NOISE EXPOSURE STANDARDS FOR NEW CONSTRUCTION SITES (Measurements and projections of noise exposures are to be made at appropriate heights above site boundaries)

GENERAL EXTERNAL EXPOSURES	AIRPORT ENVIRONS	
dB(A)	CNR ZONE */	NEF ZONE */
UNACCEPTABLE		
Exceeds 80 dB(A) 60 minutes per 24 hours	3	C
Exceeds 75 dB(A) 8 hours per 24 hours		
(Exceptions are strongly discouraged and require a 102(2)C environmental statement and the Secretary's approval)		
DISCRETIONARY -- NORMALLY UNACCEPTABLE		
Exceeds 65 dB(A) 8 hours per 24 hours	2	B
Loud repetitive sounds on site		
(Approvals require noise attenuation measures, the Regional Administrator's concurrence and a 102(2)C environmental statement)		
DISCRETIONARY -- NORMALLY ACCEPTABLE		
Does not exceed 65 dB(A) more than 8 hours per 24 hours		
ACCEPTABLE		
Does not exceed 45 dB(A) more than 30 minutes per 24 hours	1	A

* */ See Appendix 1 for explanations of Composite Noise Rating (CNR) and Noise Exposure Forecast (NEF).

8/71

*Source: "Noise Abatement and Control - Departmental Policy, Implementation Responsibilities and Standards," Policy Circular No. 1390.2, U.S. Department of HUD, August 4, 1971.

(2) Interior Noise Exposures (for new and rehabilitated residential construction).

(Note: the standards listed below are performance standards. The means required for achieving them will depend on, among other things, the external noise levels, the equipment and layout used in the building, and the noise attenuation characteristics of the building's floors and walls. These standards assume open windows unless other provision is made for adequate ventilation.)

(a) "Acceptable":

Sleeping Quarters. For the present time, HUD field personnel should consider existing and projected noise exposure for sleeping quarters "acceptable" if interior noise levels resulting from exterior noise sources and interior building sources such as heating, plumbing, and air conditioning

--do not exceed 55dB(A) for more than an accumulation of 60 minutes in any 24-hour period, and

--do not exceed 45dB(A) for more than 30 minutes during night time sleeping hours from 11 p.m. to 7 a.m., and

--do not exceed 45dB(A) for more than an accumulation of eight hours in any 24-hour day.

Other Interior Areas. HUD personnel should exercise discretion and judgement as to interior areas other than those used for sleeping. Consideration should be given to the characteristics of the noise, the duration, time of day, and planned use of the area.

(3) Insulation Between Dwelling Units

(a) "Unacceptable"

For multifamily structures, including attached single family units, floors and dividing walls between dwelling units having Sound Transmission Class (STC) of less than 45 are always unacceptable.

NOISE STANDARDS *

1. Design Noise Level/Land Use Relationship

a. The design noise levels in Table 1 (page B-4) are to be used during project development of a highway section to determine highway traffic noise impacts associated with different land uses or activities in existence at the time of location approval. In addition, the table is to be used to determine the need for abatement measures for traffic generated noise for developed land uses and activities in existence at the time of location approval. Exceptions to the design noise levels may be granted on certain types of highway improvements or portions thereof when the conditions outlined in paragraph 2 are met.

b. The exterior noise levels apply to outdoor areas which have regular human use and in which a lowered noise level would be of benefit. These design noise level values are to be applied at those points within the sphere of human activity (at approximate ear level height) where outdoor activities actually occur. The values do not apply to an entire tract upon which the activity is based, but only to that portion in which the activity occurs. The noise level values need not be applied to areas having limited human use or where lowered noise levels would produce little benefit. Such areas would include but not be limited to junkyards, industrial areas, railroad yards, parking lots, and storage yards.

c. The interior design noise level in Category E applies to indoor activities for those situations where no exterior noise sensitive land use or activity is identified. The interior design noise level in Category E may also be considered as a basis for noise abatement measures in special situations when, in the judgment of FHWA, such consideration is in the best public interest. In the absence of noise insulating values for specific structures, interior noise level predictions may be estimated from the predicted outdoor noise level by using the following noise reduction factors:

<u>Building Type</u>	<u>Window Condition</u>	<u>Noise Reduction Due to Exterior of the Structure</u>	<u>Corresponding Highest Exterior Noise Level Which Would Achieve an Interior Design Noise Level of 55 dBA</u>
All	Open	10 dB	65 dBA
Light Frame	Ordinary Sash		
	Closed	20	75
	With Storm Windows	25	80
Masonry	Single Glazed	25	80
Masonry	Double Glazed	35	90

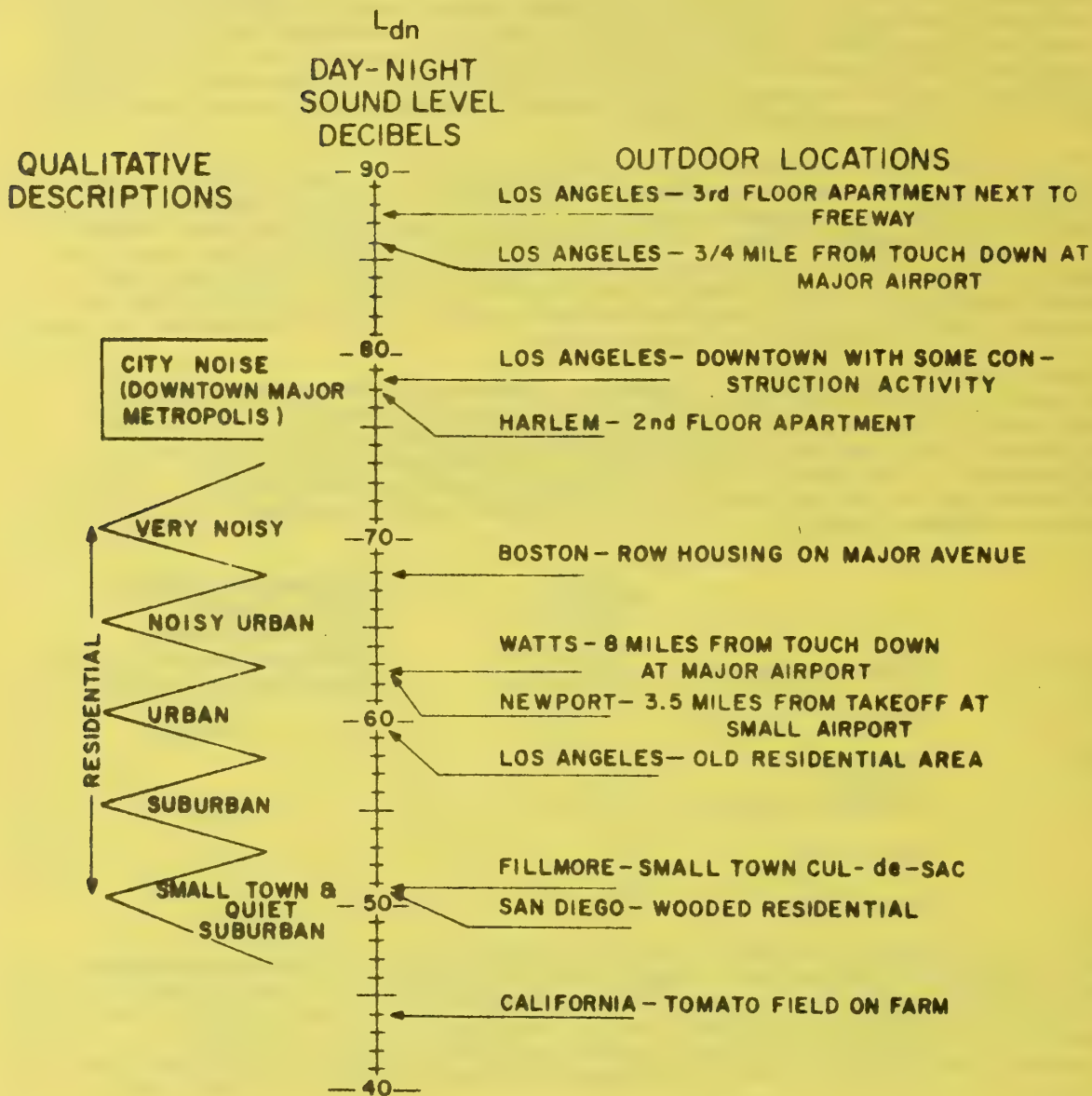
Noise reduction factors higher than those shown above may be used when field measurements of the structure in question indicate that a higher value is justified. In determining whether to use open or closed windows, the choice should be governed by the normal condition of the windows. That is, any building having year round air treatment should be treated as the closed window case. Buildings not having air conditioning in warm and hot climates and which have open windows a substantial amount of time should be treated as the open window case.

2. Exceptions

a. The design noise levels set out in these standards represent the highest desirable noise level conditions. State highway departments shall endeavor to meet the design noise levels in planning, locating, and designing highway improvements. However, there may be sections of highways where it would be impracticable to apply noise abatement measures. This could occur where abatement measures would not be feasible or effective due to physical conditions, where the costs of abatement measures are high in relation to the benefits achieved or where the measures required to abate the noise condition conflict with other important values, such as desirable esthetic quality, important ecological conditions, highway safety, or air quality.

*Source: "Interim Noise Standards and Procedures for Implementing Section 101(1) of Title 23, United States Code," Policy and Procedure Memorandum (PPM) 90-2," U.S. Department of Transportation, June 1, 1973.

Appendix M4
Qualitative Description of L_{DN} Measurements*

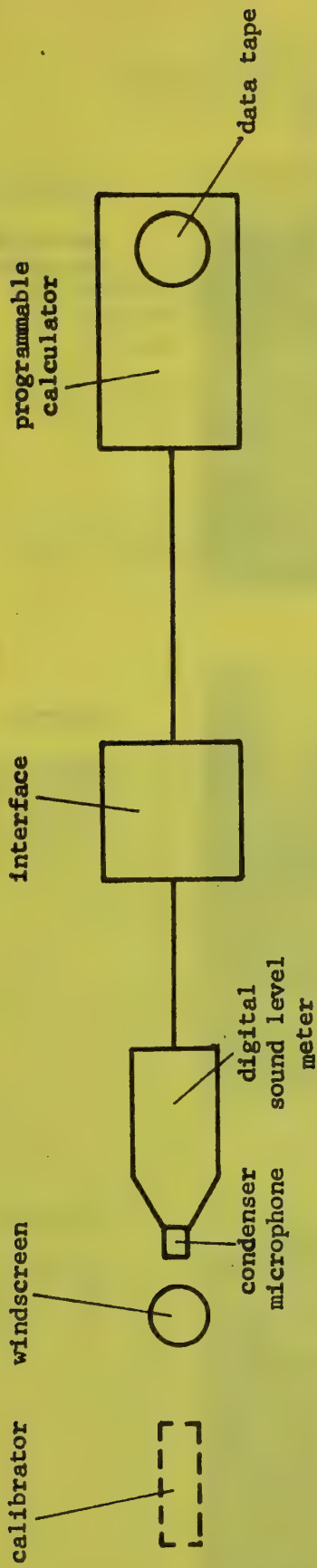


Examples of Outdoor Day-Night Sound Level in dB (re 20 micropascals)
Measured at Various Locations^{B-4}

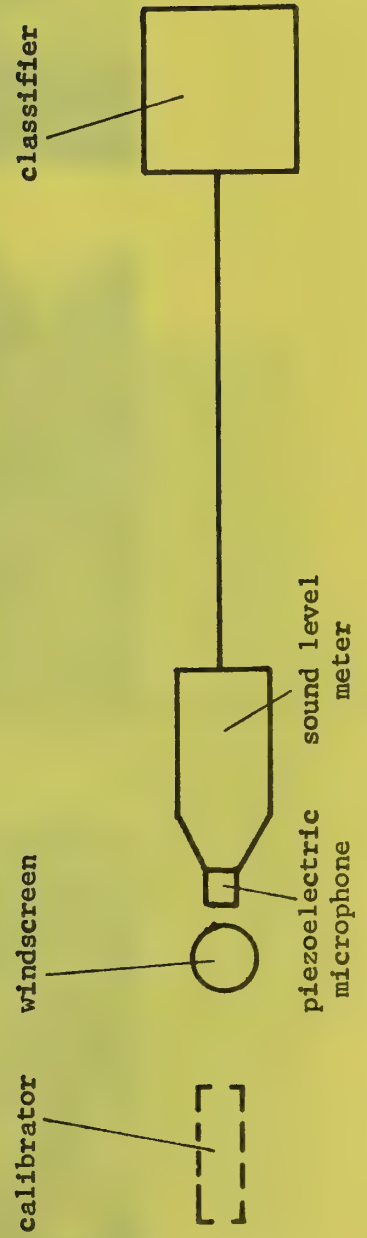
*Source: "Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety," U.S. Environmental Protection Agency, Office of Noise Abatement and Control, March 1974.

Appendix M5

OUTDOOR NOISE MONITORING SYSTEM



INDOOR NOISE MONITORING SYSTEM



Appendix M6



POSITION ①

northeast corner of
Fourth and Harrison Sts.



POSITION ②

along Mission St. between
Third and Fourth Sts.
(across from St. Patrick's
church)



POSITION ③

northwest corner of
Fourth and Howard Sts.

Appendix M7
Noise Measurement Readings

YBC

HUD

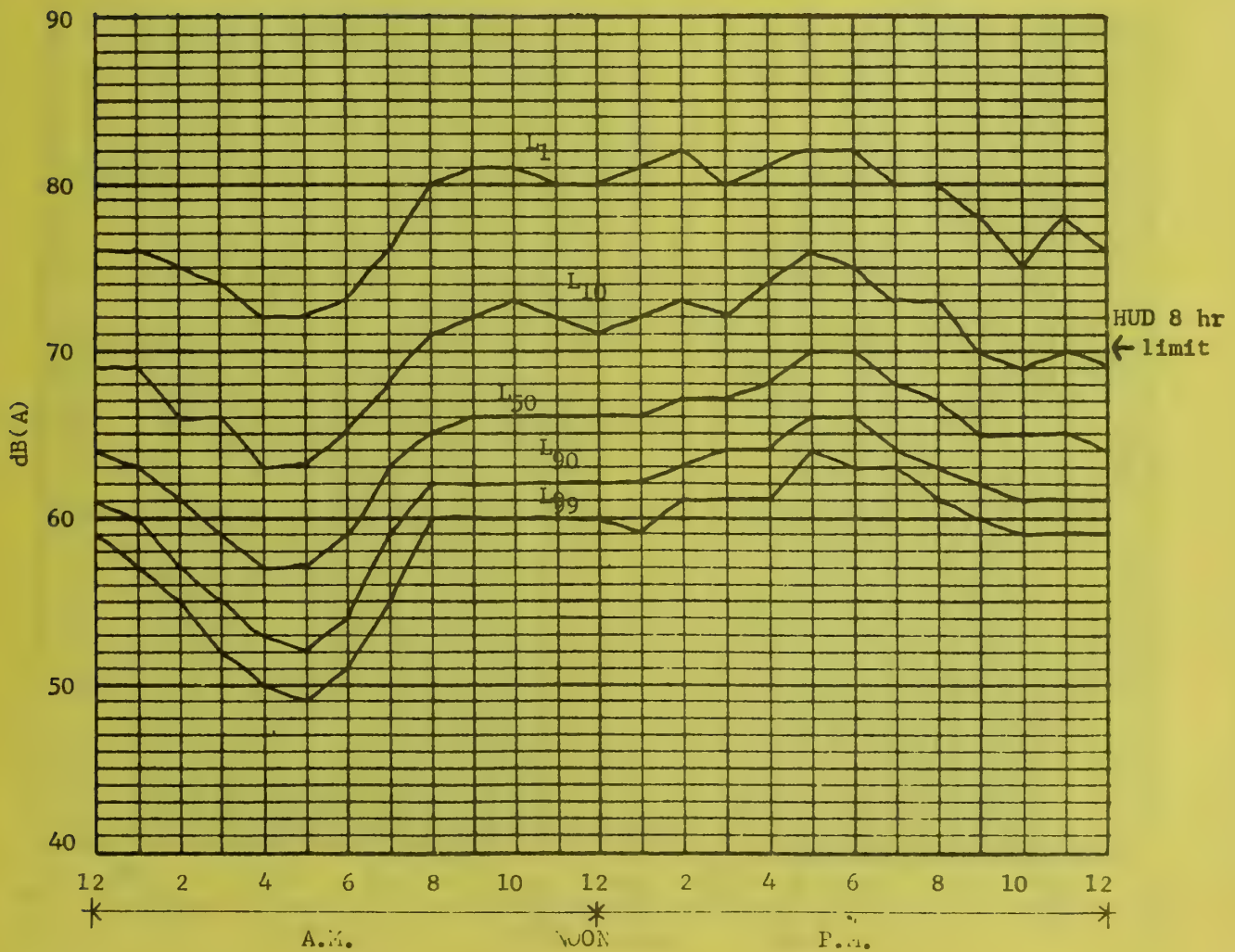
Figure 1

POSITION (1)

397 Fourth St., northeast corner of Fourth and Harrison
2nd floor of Harrison Hotel, 15' above street level near
the building line.

Friday 9/13/74 thru Monday 9/16/74

— $L_{1,10,50,90, \text{ or } 99}$
LEVEL EXCEEDED 1%, 10%, 50%, 90%, or 99% OF THE TIME



POSITION (1) Fig. 1

Figure 1a

POSITION (1)

397 Fourth St., northeast corner of Fourth and Harrison
2nd floor of Harrison Hotel, 15' above street level near
the building line.

Friday 9/13/74 thru Monday 9/16/74

— L_{EQ} EQUIVALENT NOISE LEVEL

$$L_{EQ(24)} = 69.9 \text{ dB(A)}$$

$$L_{DN} = 74.7 \text{ dB(A)}$$

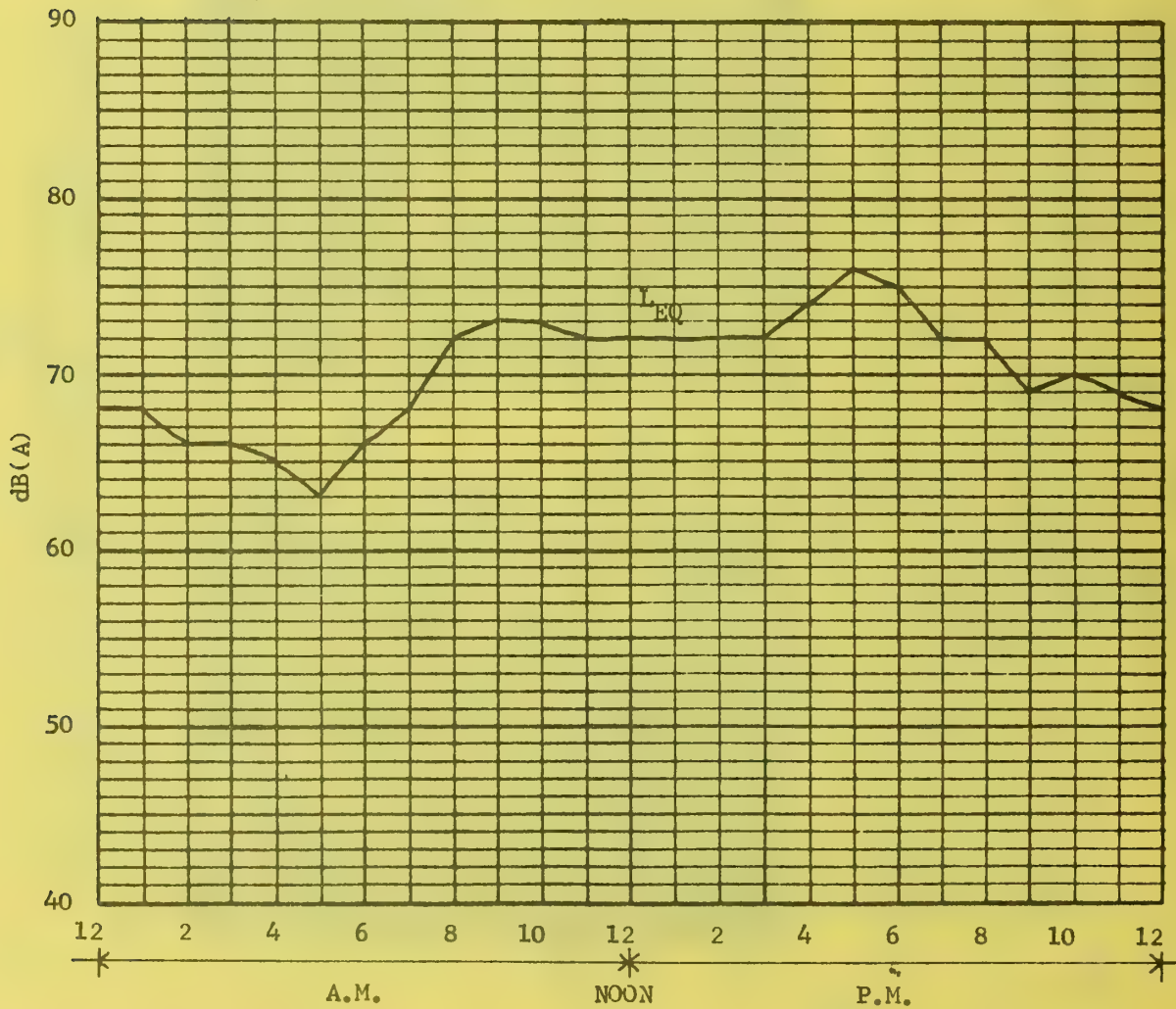


Figure 1b

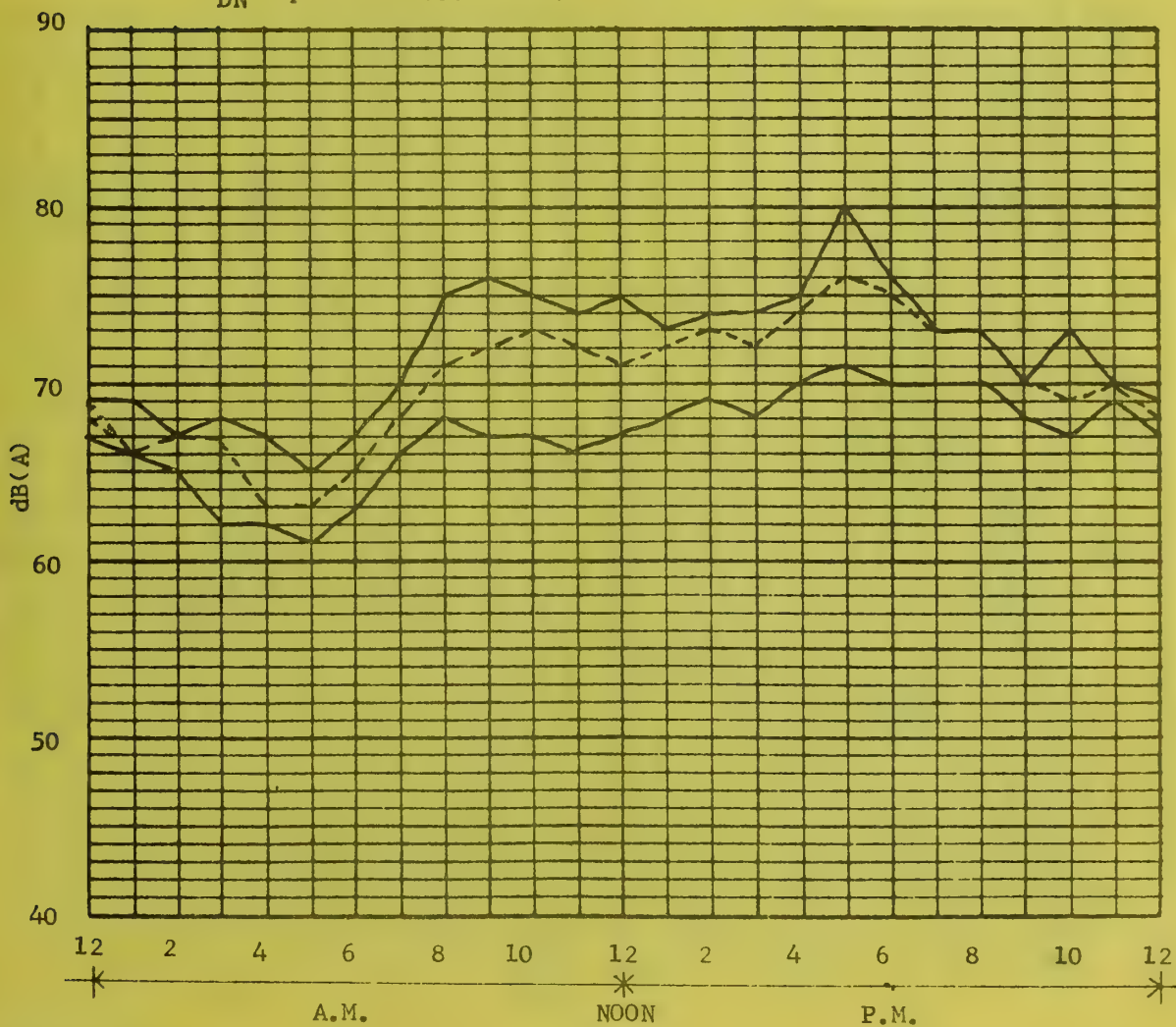
POSITION (1)

397 Fourth St., northeast corner of Fourth and Harrison
 2nd floor of Harrison Hotel, 15' above street level near
 the building line.

———— ENVELOPE OF L_{EQ} VALUES FOR CALENDAR DAYS FRI., SEPT 13
 THRU MON., SEPT. 16, 1974.

----- L_{10}
 ————

L_{DN} Sept. 13 = 75.5 dB(A)
 L_{DN} Sept. 14 = 74.0 dB(A)
 L_{DN} Sept. 15 = 73.6 dB(A)
 L_{DN} Sept. 16 = 75.6 dB(A)



POSITION (1) Fig. 1b

Figure 2

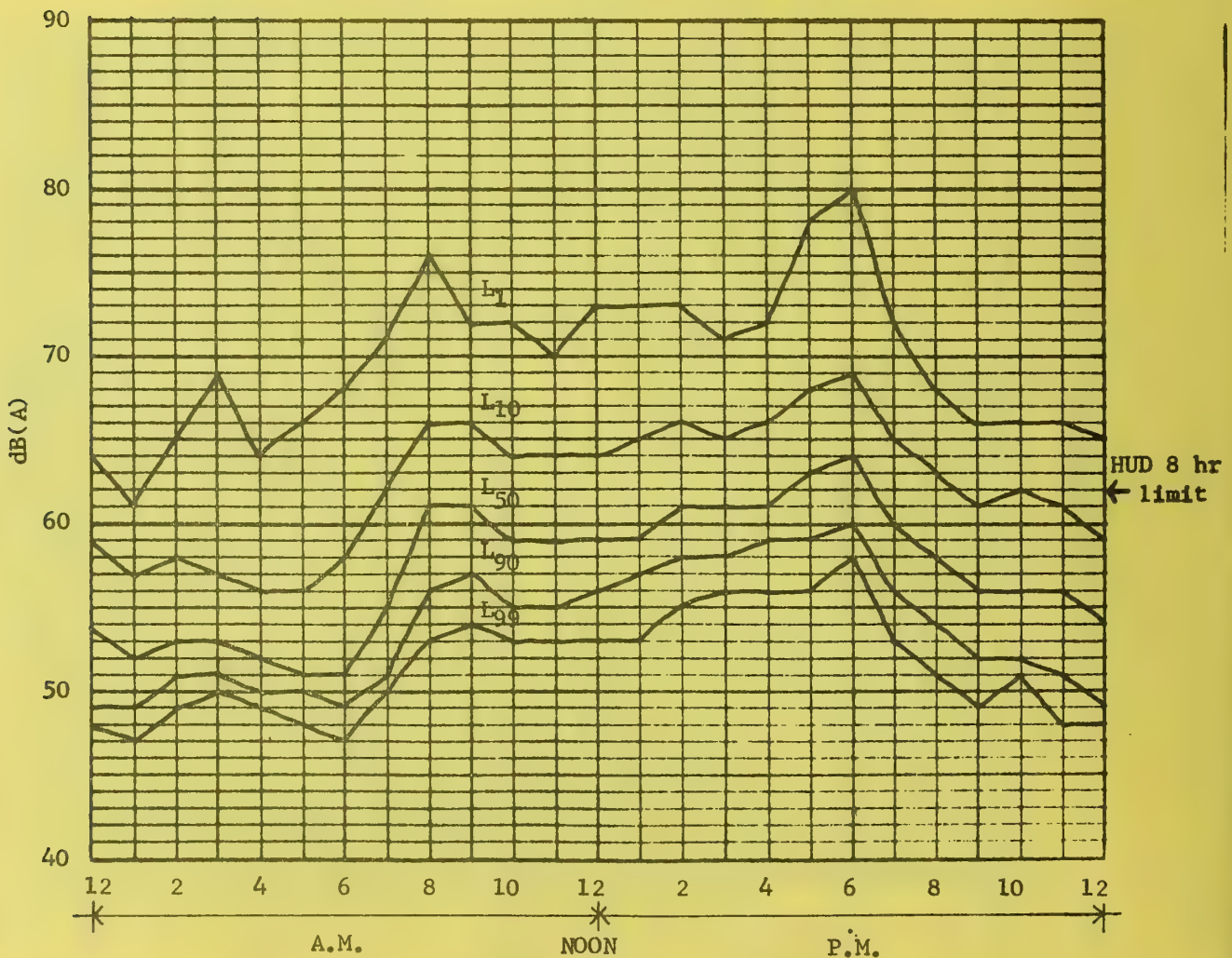
POSITION (2)

across from 658 Mission St., (St. Patrick's Church)
 4' above street level and 75' from centerline of street*
 7' high slat chain link fence at building line (midpoint)

9/18/74

—— $L_{1,10,50,90 \text{ or } 99}$
 LEVEL EXCEEDED 1%, 10%, 50%, 90% or 99% OF THE TIME

*The levels in this graph should be increased by about
 7 dB(A) to estimate noise levels at the building line.



POSITION (2) Fig. 2

Figure 2a

POSITION (2)

across from 658 Mission St., (St. Patrick's Church)
 4' above street level and 75' from centerline of street*
 7' high slat chain link fence at building line (midpoint)

9/18/74

—— L_{EQ} EQUIVALENT NOISE LEVEL

 $L_{EQ}(24) = 62.7 \text{ dB(A)}$ $L_{DN} = 68.4 \text{ dB(A)}$

* The levels in this graph should be increased by about 7 dB(A) to estimate noise levels at the building line.

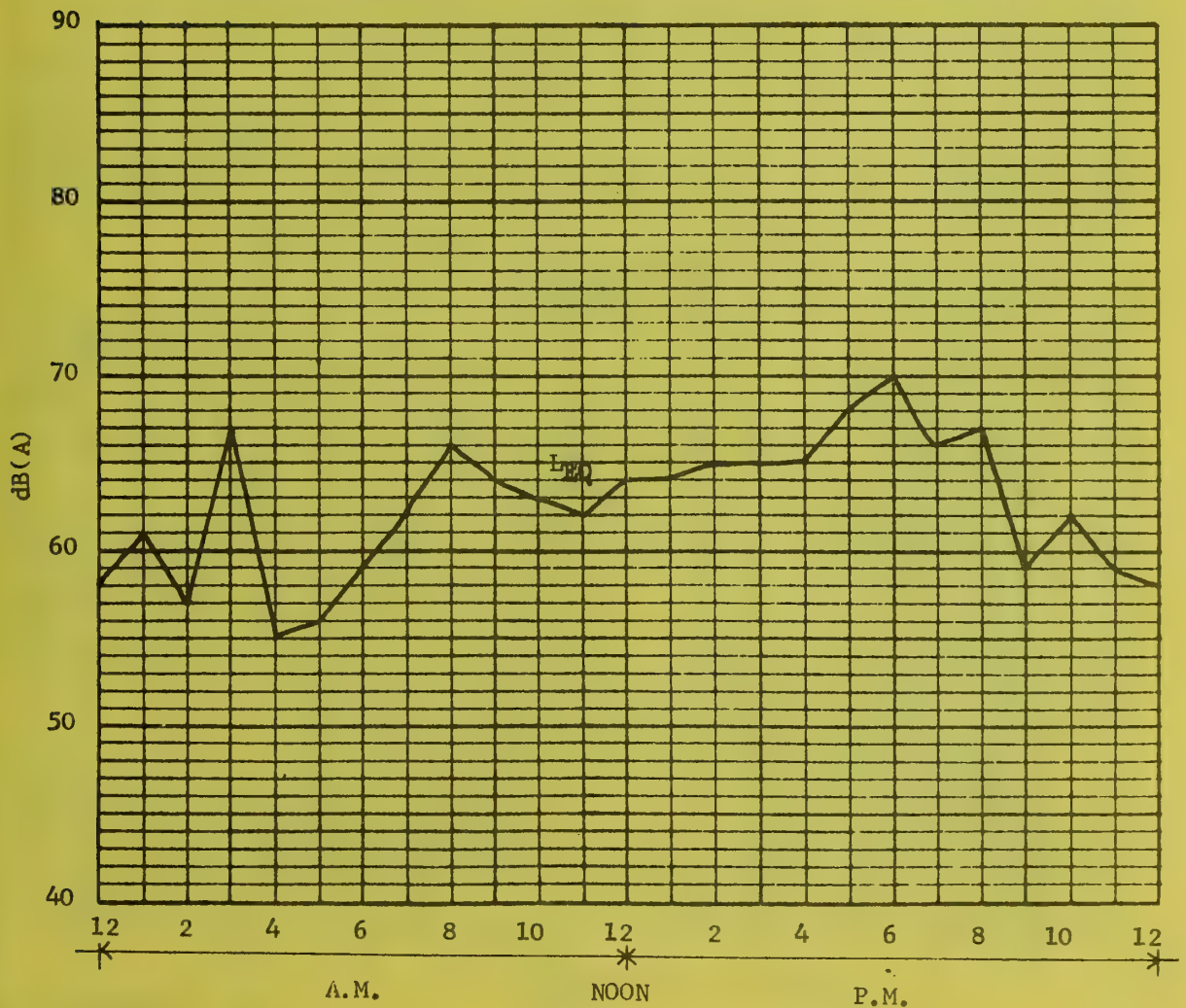


Figure 3

POSITION (3)

192 Fourth St., northwest corner of Fourth and Howard
2nd floor of Mars Hotel, 20' above street level near
the building line

9/20/74

———— $L_1, 10, 50, 90$ or 99

LEVEL EXCEEDED 1%, 10%, 50%, 90% or 99% OF THE TIME

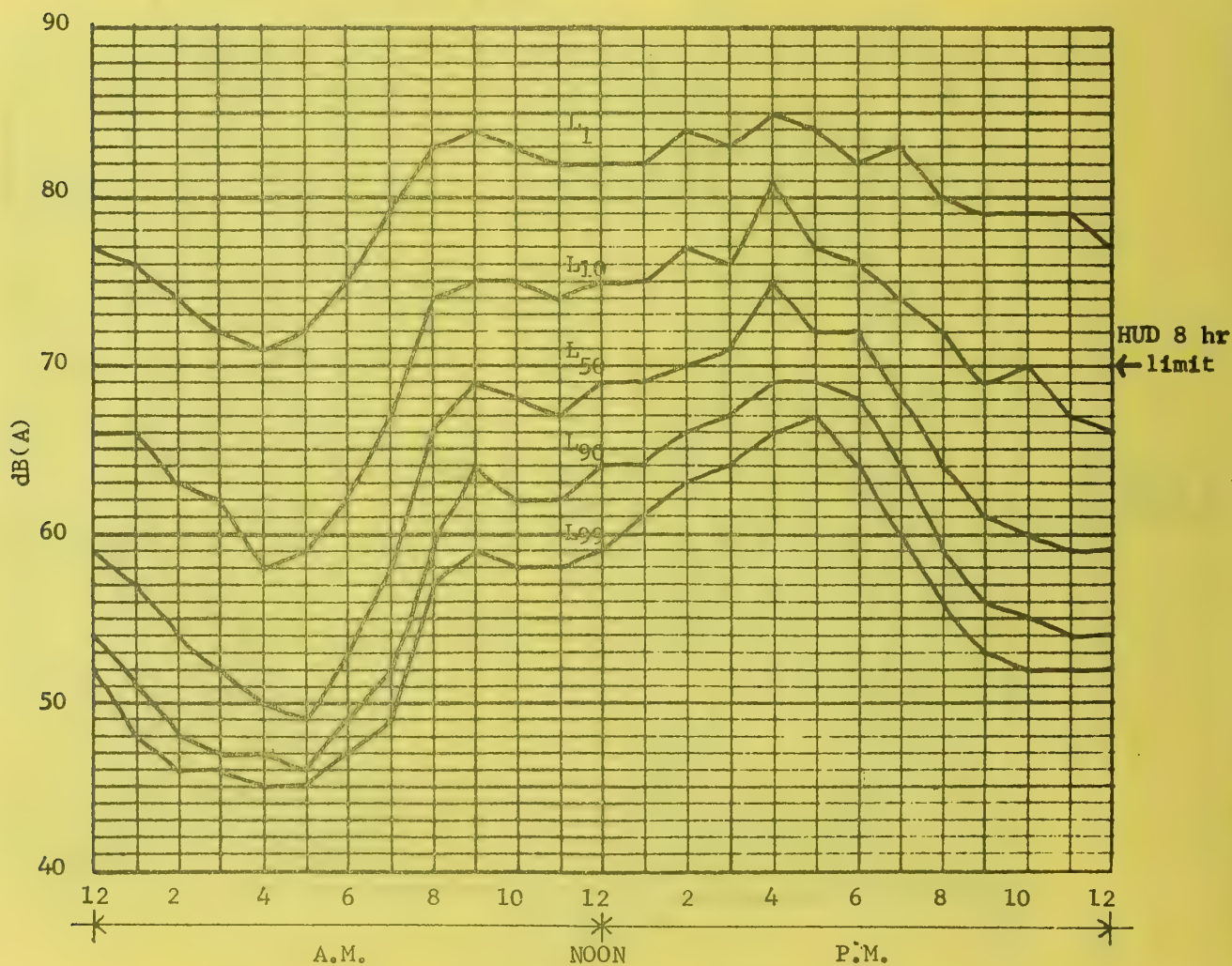


Figure 3a

POSITION (3)

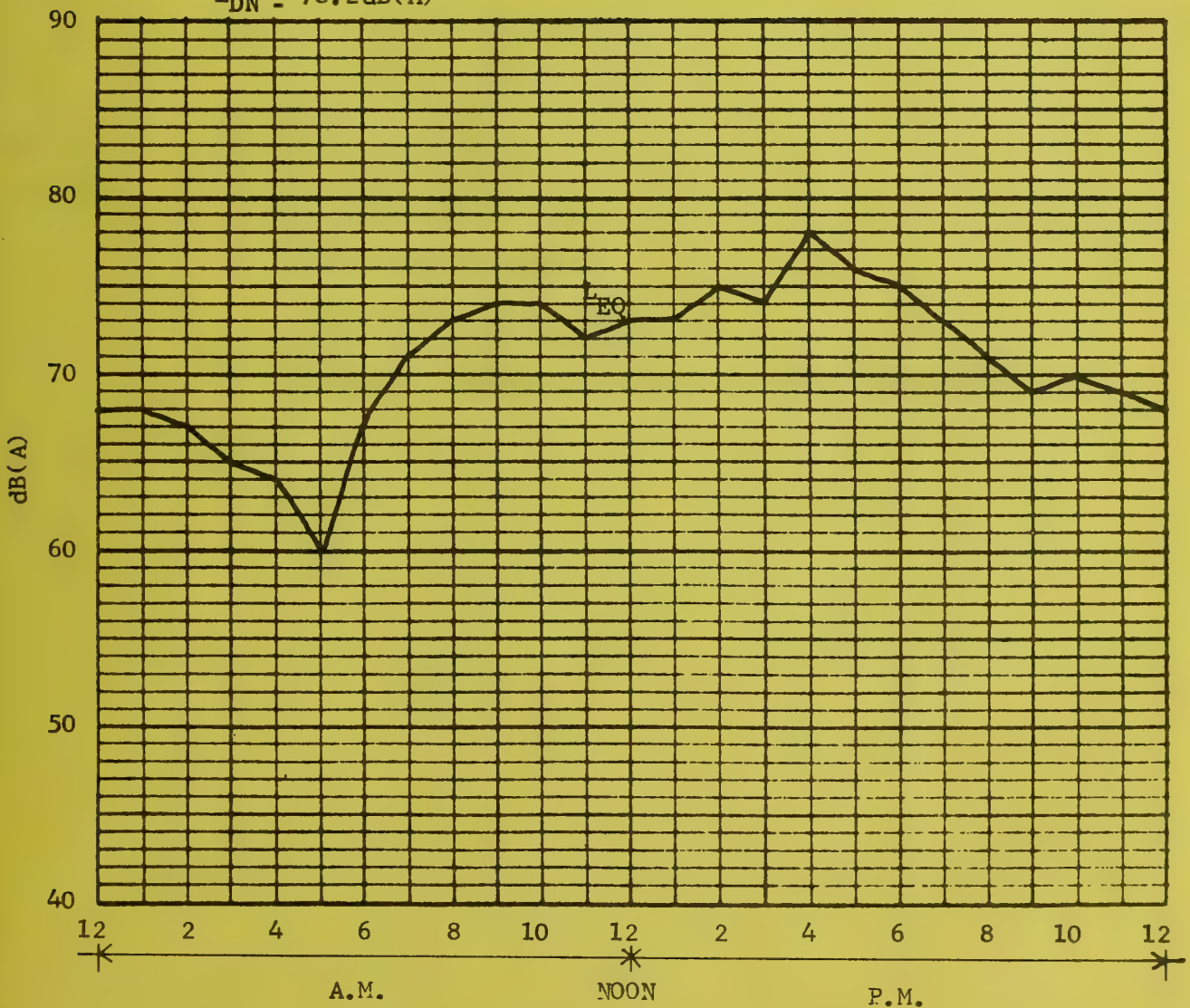
192 Fourth St., northwest corner of Fourth and Howard
2nd floor of Mars Hotel, 20' above street level near
the building line.

9/20/74

—— L_{EQ} EQUIVALENT NOISE LEVEL

$$L_{EQ(24)} = 71.8 \text{ dB(A)}$$

$$L_{DN} = 78.2 \text{ dB(A)}$$



APPENDIX N

AIR QUALITY

1. Basic Meteorological Parameters
2. VMT Generated by YBC
3. Natural Gas Emissions
4. Construction Activities
5. Equations, Diffusion Models, and Input Parameters

APPENDIX N₁

BASIC METEOROLOGICAL PARAMETERS

The meteorological inputs were developed for use in the Wind and Air Pollution Control Study of YBC by J. E. Cermack, et. al. These were based upon long-term data taken at various stations near the YBC. The parameters and the locations where they were monitored are as follows:

Wind speed and direction: Federal Office Building,
50 Fulton Street. The relative location are shown
in figure 1.

Atmospheric stability (mixing depth): Oakland Airport.

The wind tunnel experiments included tests to find correlations between wind speed and direction at the center and at the Federal Office Building. The values presented in the YBC analysis are for wind speeds and directions correlating to the directions and velocities at the reference location (Federal Building). The following table summarizes the meteorological conditions used in all these calculations.

	1976		1982	
	ave	peak	ave	peak
wind speed, m/sec	5.0	1.0	5.0	1.0
wind direction	S,W NW	S,W, NW	S,W, NW	S,W, NW
mixing depth, meters	500	200	500	200
atmospheric stability	neutral	stable	neutral	stable

average hours: 10 AM to 3 pm averaged
peak hour: 4 PM to 6 PM (late afternoon)
and 11 PM (late evening)

Source: URS Research Co.

Position of Federal Office Building
in relation to YBC

APPENDIX N 2

VMT Generated by YBC

A. Afternoon Peak Period (4-6 PM - 2 hours)

1. Current

(Peak Period = 77% of total of 4,300 garage spaces = 3,312* autos)

	<u>Vehicles</u>	<u>Miles/Vehicle</u>	<u>VMT</u>
SF	1,437	3	4,401
E. Bay	832	10	8,320
Pen.	706	15	10,590
N. Bay	<u>307</u>	<u>10</u>	<u>3,070</u>
Totals	3,312		26,381
ave./hr	1,656 vehicles		13,191 VMT

2. Projected (project as Currently Planned)

(Peak Period = 2,548 autos exiting 3,900 off-street spaces**)

	<u>Vehicles</u>	<u>Miles/Vehicle</u>	<u>VMT</u>
SF	673	3	2,019
E. Bay	561	10	5,610
Pen.	954	15	14,310
No. Bay	<u>360</u>	<u>10</u>	<u>3,600</u>
Totals	2,548		25,539
ave./hr.=	1,274 vehicles		12,770 VMT

*The available parking spaces in the Project area are used almost exclusively by commuters; approximately 77% of all commuters exit the downtown area during the afternoon peak period.

**Refer to Section IV. E. 1, Traffic.

3. Potential with Unlimited Parking and Street Capacities;*
and Maximum Use of Facilities

-Convention Center (max. capacity = 50,000; approx.

2/3's or 33,350 exit during peak period; approx.
11,739 of these exit by auto w/1.4 persons per
vehicle)

<u>Destination</u>	<u>#Vehicles</u>	<u>Miles/Vehicle</u>	<u>VMT</u>
San Francisco	3,621	3	10,863
Peninsula	2,382	15	35,730
East Bay	2,382	10	23,820
	8,385		70,413
ave./hour =	4,193 vehicles		35,207 VMT

-Hotel Guests - max. occupancy of 980; Max. of 70
exiting by automobile during peak period, with
1.4 persons per automobile; all destinations in
San Francisco

70 persons x 1.4 persons/vehicle = 50 vehicles

50 vehicles x 3 miles/vehicle = 150 VMT
ave./hr = 25 vehicles; 75 VMT

*These figures are based upon the projected modal distribution of traffic which would naturally occur in YBC if not limited by street and parking capacity. Refer to Section IV. E. 1, "Traffic" for a discussion of the modal splits.

-Employment - (35,523 employees; 77% exit during peak period; 46% of these exit by automobile, with 1.4 persons ver vehicle; for a total of 9,041 vehicles*)

<u>Destination</u>	<u>#Vehicles</u>	<u>Miles/Vehicle</u>	<u>VMT</u>
San Francisco	2,351	3	7,053
East Bay	2,079	10	20,790
Peninsula	3,345	15	50,175
No. Bay	<u>1,266</u>	10	<u>12,660</u>
Total	9,041		90,678
ave./hr =	4,521 vehicles		45,339 VMT
Total Max. Potential VMT/hr.			
	Convention Center	35,207	
	Hotel Guests	75	
	Employment	<u>45,339</u>	
			80,621 VMT

* Refer to Tables IV and VII Section IV. E. 1.

B. Evening Peak Period - Projected (1 hour)*

<u>Destination</u>	<u>Vehicles</u>		<u>Miles/ Vehicle</u>	<u>VMT</u>	
	<u>Ave.</u>	<u>Max.</u>		<u>Ave.</u>	<u>Max.</u>
1. Sports Arena					
San Francisco	2,191	6,839	3	6,573	20,517
East Bay	481	1,504	10	4,810	15,040
Peninsula	464	1,449	15	6,960	21,735
No. Bay	<u>121</u>	<u>376</u>	10	<u>1,210</u>	<u>3,760</u>
Totals	3,257	10,168		19,553	61,052
2. Theater					
San Francisco	505	841	3	1,515	2,523
East Bay	111	185	10	1,110	1,850
Peninsula	107	179	15	2,685	2,685
No. Bay	<u>28</u>	<u>46</u>	10	<u>280</u>	<u>460</u>
Totals	751	1,251		5,590	7,518
3. Convention Hall - public exhibits					
San Francisco	1,403	3,507	3	4,209	10,521
East Bay	309	771	10	3,090	7,710
Peninsula	297	743	15	4,455	11,145
No. Bay	<u>77</u>	<u>193</u>	10	<u>770</u>	<u>1,930</u>
Totals	2,085	5,214		12,524	31,306

* Refer to Table VIII, Section IV, E. 1.

Totals

	<u>Vehicles</u>		<u>VMT</u>	
	<u>Ave.</u>	<u>Max.</u>	<u>Ave.</u>	<u>Max.</u>
Sports Arena	3,257	10,168	19,553	61,052
Theater	751	1,251	5,590	7,518
Public Exhibits	<u>2,085</u>	<u>5,214</u>	<u>12,524</u>	<u>31,306</u>
	6,093	16,633	37,667	99,876

C. Off Peak Traffic (per hour)

<u>Destination</u>	<u>Vehicles</u>		<u>Miles/ Vehicle</u>	<u>VMT</u>	
	<u>Ave.</u>	<u>Max.</u>		<u>Ave.</u>	<u>Max.</u>
1. Convention Center Delegates (10 AM - 4 PM - 6 hours)					
San Francisco	380	1,808	3	1,140	5,424
East Bay	250	1,189	10	2,500	11,890
Peninsula	<u>250</u>	<u>1,189</u>	15	<u>3,750</u>	<u>17,835</u>
Totals	880	4,186		7,390	35,149
ave./hr.	147	698		1,232	5,858
2. Hotel Guests (10 AM - 4 PM; 6 PM - 8 PM - 8 hours)					
San Francisco	161	201	3	483	603
ave./hr.	20	25		60	75

3. Apparel Mart and Retail Stores (10 AM - 4 PM - 6 hours)

San Francisco	1,520	1,520	3	4,560	4,560
East Bay	410	410	10	4,100	4,100
Peninsula	600	600	15	9,000	9,000
No. Bay	<u>600</u>	<u>600</u>	10	<u>6,000</u>	<u>6,000</u>

Totals	3,130	3,130		23,660	23,660
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ave./hr. =	522 vehicles		3,943 VMT
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4. Employment (10 AM - 4 PM - 6 hours)

San Francisco	999	999	3	2,997	2,997
East Bay	833	833	10	8,330	8,330
Peninsula	1,412	1,412	15	21,180	21,180
No. Bay	<u>536</u>	<u>536</u>	10	<u>5,360</u>	<u>5,360</u>

Totals	3,780	3,780		37,867	37,867
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ave./hr	630 vehicles		6,311 VMT
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5. Public Exhibits (6-9 PM - 3 hours)

San Francisco	1,403	7,014	3	4,209	21,042
East Bay	309	1,543	10	3,090	15,430
Peninsula	297	1,486	15	4,455	22,290
No. Bay	<u>77</u>	<u>386</u>	10	<u>770</u>	<u>3,860</u>

Totals	2,086	10,429		12,524	62,622
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ave./hr.	695	3,476		4,175	20,874
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<u>Totals</u>	<u>Vehicles</u>		<u>VMT</u>	
	<u>Ave.</u>	<u>Max.</u>	<u>Ave.</u>	<u>Max.</u>
Convention Delegates	147	698	1,232	5,858
Hotel Guests	20	25	60	75
Apparel Mart & Retail	522	522	3,943	3,943
Employment	630	630	6,311	6,311
Public Exhibits	<u>695</u>	<u>3,476</u>	<u>4,175</u>	<u>20,874</u>
	2,014	5,351	15,721	37,061

APPENDIX N3

Natural Gas Emissions

The natural gas emissions were computed using point sources, as are described in the previous section. The analysis was conducted by hand methods, as only emission location was involved, this being a single stack on the physical plant at the southern corner of the YBC. Therefore, the discussions concerning the point source as given in the preceeding section apply for this source also.

Input parameters;

Basic meteorological paremeters: Appendix M₁

Sampling periods: ave. (24 hours), peak (one hour)

Area of study: 500 meters downwind (within YBC only)

Source strengths:

The natural gas emission factors are from the EPA*, and are as follows:

			lb/10 ⁶ ft ³		
	Part	SOx	CO	HC	NOx
commercial heating units, using natural gas	19	0.6	20	8	75

*Op. cit. Compilation of Air Pollutant Emission Factors

Source: URS Research Co.

APPENDIX ^N4

Construction Activities

Construction activities were analyzed as to their impacts on local air quality. The model used for this activity involved the use of multiple point continuous emissions. The point sources represent individual groups of heavy duty equipment and their emissions. The model used is from Turner*, and is based on the same original work by Sutton** as the line sources outlined earlier. The equation used is as follows:

$$\frac{X}{Q} = \frac{1}{2\pi\sigma_y\sigma_z\bar{u}} \exp \left[-\frac{1}{2} \left(\frac{y}{\sigma_y} \right)^2 \right] \left(\exp \left[-\frac{1}{2} \left(\frac{z-H}{\sigma_z} \right)^2 \right] + \exp \left[-\frac{1}{2} \left(\frac{z+H}{\sigma_z} \right)^2 \right] \right)$$

The parameters are defined as follows:

X = downwind concentration (as grams/meter³)
Q = source strength (as grams/sec.)

\bar{u} = wind velocity (as meters/sec)

z = height above ground where X is calculated (as meter)

H = release height (as meters)

y = crosswind distance where X is calculated (as meter)

*Op. cit., D. B. Turner

**Op. cit., O. G. Sutton

σ_y, σ_z = horizontal and vertical diffusivity coefficients,
 computed as follows for various atmospheric stabilities
 and downwind distances:

<u>Stability</u>	σ_z	Range of X (downwind distance)		
F	0.8			
	0.06 x	100	---	800 meters
	0.65			
	0.16 x	800	---	2,000
	0.46			
	0.66 x	2000	---	12,000
	0.29			
	3.16 x			712,000
D	0.85			
	0.09 x	0	---	700 meters
	0.70			
	0.24 x	700	---	1,500
	0.62			
	0.47 x	1,500	---	20,000
	0.51			
	1.23 x			720,000
E	0.79			
	0.09 x	0	---	1,000
	0.63			
	0.28 x	1000	---	3,000
	0.48			
	0.91 x	3000	---	30,000
	0.31			
	5.37 x	30,000	---	100,000
C	0.91			
	0.115 x	0	---	100,000

B		0.94	
	0.145X		0 --- 500
		1.1	
	0.05 X		500 --- 33,000
Stability		range of downwind distance	
A	0.09 x 1.1		0 --- 300 meters
	0.01 x 1.45		300 -- 500
	0.0002 x 2.01		7500

Stability	G_z	(for all values of x)
A		0.9
	0.47 X	
B		0.9
	0.33 X	
C		0.9
	0.20 X	
D		0.9
	0.13 X	
E		0.9
	0.10 X	
F		0.9
	0.06 X	

About 10 multiple points were scattered within the boundary of the YBC to describe the construction activities. The values obtained were modified for sampling periods, as specified in the previous section. The peak values are for one hour, while the average values are adjusted for 24 hours.

The computer print out was confined to an area 500 meters on a side for the construction activities.

The parameter inputs for the constructor activity are as follows:

Basic meteorological parameters: (Appendix M1)

Sampling periods: ave. (24 hours), peak (one hour)

source heights: ground level

area of study: 500 M square

source strengths:

About one million cubic yards of material will be excavated and removed during a three month period of time. The following table summarizes the number of HDV on site at any one time, along with the fuel consumption:

DIESEL FUEL CONSUMPTION DURING EXCAVATION

CONSTRUCTION VEHICLE	NUMBER OF VEHICLES	RATE OF FUEL CONSUMPTION PER VEHICLE (gal/hr)	RATE OF FUEL CONSUMPTION (gal/hr)
Front End Loader	4	6.5	26.0
Bulldozer	3	10.5	31.5
Dump Truck	4	6.0	24.0
Auger Drill	1	4.0	4.0
Backhoe	2	7.5	15.0
Total			100.5

EPA emission factors* for diesel fuel combustion were used in conjunction with these rates, and are as follows:

	Part	SO _x	CO	HC	NO _x
lb/10 ³ gallons	13	27	225	37	370

An emission factor of about 4 lbs./yd.³ or about 0.3% of dirt excavated was used for particulates (fugitive dust). A value of 2 lbs/ton (1%) is given by the EPA** for rock transfer and storage. The calculated downwind concentrations were checked by monitoring excavation activities, and the values obtained were close to those predicted (about 20,000 $\mu\text{g}/\text{m}^3$ close to site during average conditions). This fugitive dust emission factor is not related to the suspended particulates standards. The fugitive dust is of much larger physical size and has different toxological properties.

Since the construction activities will not vary considerably, except as effected by meteorological conditions, only average emissions were used.

* Op. cit. Completion of Air Pollution Emission Factors

** Ibid.

Source: URS Research Co.

APPENDIX N5

Equations, Diffusion Models & Input Parameters

James Lick Freeway

The James Lick Freeway affects the air quality at the YBC during south wind conditions. The model used in predicting the effects of this freeway on the ambient air quality at the YBC is based upon original work by Sutton* and presented in graphical solution form by Elliott and Barad**. The equation used by Elliott and Barad for a continuous infinite length line source is as follows:

$$\frac{D}{Q} = \frac{2}{\sqrt{\pi} C_z \bar{u}_x (2 - n_z)/2} \exp - \left[\frac{h^2}{C_z^2 x^2 - n_z} \right]$$

This equation is a continuously integrated form of the original Sutton equation (ground level, continuous point source). This equation uses Sutton's method of images and is therefore appropriate for a release height, above the ground. The following list summarizes the definitions of the parameters used in this above equation:

- D = total dosage, quantity per unit volume (such as grams/meter³).
- Q = source strength, gravity per unit time per unit times per unit length of release (such as grams/sec/meter).

* Sutton, O. G., Micrometeorology, McGraw-Hill, 1953.

** Elliott, W. P. and M. L. Barad, Operational Prediction of Diffusion Downwind from Line Sources, Air Force series in Geophysics, No. 156. Office of Aerospace Research, USAF, 1964.

h = source release height (such as meters).

\bar{u} = wind speed (such as meters/sec).

x = downwind distance where the specified dosage occurs (such as meters)

C_z and σ_z = diffusion parameters, based on atmospheric stability as shown in the following table:

Stability Class	Range of SR*	$C_z \sigma_z / z$ (meters)	σ_z
very unstable (A)	< -0.45	0.002	-1.20
moderately unstable (B)	-0.45 to -0.20		-0.40
neutral (c)	-0.20 to 0.20	0.07	0.10
moderately stable (D or E)	0.20 to 0.45	0.07	0.20
very stable (F)	> 0.45	0.07	0.30

* SR = stability ratio, based on temperature lapse rate and wind speed.

The dosage values were presented in ppm (parts per million by volume), except for particulates which were expressed as micrograms/meter³ ($\mu\text{g}/\text{m}^3$). The conversion factors used were based on the formula, $\text{ppm} = \frac{\text{g}/\text{m}^3 (2.404) 10^8}{M}$, where M = molecular weight.

The resulting values were also modified for wind angle against the freeway and for sampling period. The wind angle modification is necessary, because during a southern wind, the freeway is at an angle of 45 degrees with the wind. Generally, a 45 degree wind angle modification is the maximum that may be used for a line source*, but recent work has resulted in a possible increase of this angle modification, perhaps to as little as a 30 degree angle between the roadway and wind direction. This modification in

* Turner, D. B., Workbook of Atmospheric Dispersion Estimates, National Air Pollution Control Administration, Cincinnati, Ohio 1969.

absolute concentration is achieved by dividing the dosage by $\sin \theta$, where θ is the angle between the wind direction and the line source. Therefore, for any wind direction that is not perpendicular to the roadway alignment, the concentration increases. For the 45 degree angle modification used in this study, this increase amounted to 1.4 times the absolute concentrations.

These values obtained from the figures in Elliott and Barad are only accurate for 3 minute sampling periods. Beyond three minutes fluctuations in wind direction have the effect of dramatically altering the horizontal diffusion parameters. Turner* has published a table with variation coefficients to be used. This table follows:

Sampling time	Ratio of calculated concentration to 3-minute concentration
3 minutes	1.00
15 minutes	0.82
1 hour	0.61
3 hours	0.51
8 hours	0.44
12 hours	0.39
24 hours	0.36

These values are only absolutely applicable to the location where they were initially determined. Different locations would have local topographic effects. Specific directions of wind flow may be highly channeled, due to buildings and topography. These values were used for the freeway due to the lack of accurate local information. Modifications of sampling periods greater than one day cannot be done by the above method. Major weather patterns will usually change in periods greater than one day, so these modifications should be based on "wind rose" patterns.

The specific input parameters used in the above model for the YBC were as follows:

*Op. cit. D. B. Turner.

basic meteorological parameters (Appendix M).

sampling periods: ave. (24 hours), peak (one hour)

source height (elevated freeway); 16 meters

(since the plaza area of the YBC and the freeway are approximately at the same height, the release height was considered 0 for the YBC).

downwind distances;

at Folsom	140 meters
Howard	240 meters
Mission	330 meters
Market	440 meters

source strengths:

The freeway emissions are based on traffic volumes, traffic mix, study year and projected emission standards. The traffic volumes are based on figures obtained from the California Department of Highways (Gene Oliver, San Francisco office), and are as follows:

vehicles/hr. (1982)

ave. hour	- 9,400
peak hour	-13,800

The emission factors were obtained from the Compilation of Air Pollutant Emission Factors, EPA, 1972,* and projected forward to derive 1982 emission factors. These values are almost identical to currently accepted California emission factors, with 10% heavy duty vehicles, including revised emission standards. The 1982 emission factors are based on vehicle mixes and standards as given in a manual by the California Division of Highways.** This procedure takes into account vehicle mix, vehicle age, deterioration factor, and emission standards. These emission factors are as follows:

*1975 Interim Emission Standards have been developed since the preparation of the statistics and can vary comparisons by up to 10%.

**Calif. Division of Highways, Motor Vehicle Emission Factors for Estimates of Highway Impact on Air Quality, 1972.

grams/mile (1982)

	CO	HC	NOx	Part.	50x
<u>ave. hour</u> (60 mph, freeway)	4.7	0.53	0.65	0.10	0.18
<u>peak hour</u> (20 mph, stop & go)	14	1.1	0.65	0.10	0.18

Adjacent Roadways (Urban Canyon)

The traffic on the adjacent roadways was analyzed, using an "urban canyon" model. Basically, this configuration considers limited lateral dispersion. The model considers wind parallel to the roadway, so common line sources are not usable. Instead, the roadway emissions are represented by many (about 10) point sources. The values used are representative of well mixed conditions, where the source configuration becomes masked. The basic equation used is from Turner,* and is as follows:

$$\frac{X}{Q} = \frac{1}{\pi \sigma_y \sigma_z \bar{u}} \left\{ \exp \left[-\frac{1}{2} \left(\frac{y}{\sigma_y} \right)^2 \right] + \exp \left[-\frac{1}{2} \left(\frac{y+B}{\sigma_y} \right)^2 \right] \right\} \left\{ \exp \left[-\frac{1}{2} \left(\frac{H}{\sigma_z} \right)^2 \right] \right\}$$

This equation is similar to the point source equation, except for the added parameter, B, where

$$B = \frac{1}{2} \text{ the width of the "canyon."}$$

*Op. cit., D. B. Turner
Source: URS Research Co.

This equation involves reflective computations, and the downwind concentrations perpendicular to the canyon eventually become the same.

The Howard Street overcrossing effects on the YBC plaza were determined using similar methods as the line source method discussed for the freeway.

APPENDIX 0

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PART II

COMMENTS IN RESPONSE TO THE
DRAFT ENVIRONMENTAL IMPACT STATEMENT

Comments in Response to the Draft Environmental
Impact Statement

I. HUD General Responses

II. Comments

A. Federal Agencies

1. Agriculture
2. Army
3. Commerce
4. Environmental Protection Agency
5. Health, Education and Welfare
6. Interior

B. State Agencies

1. Air Resources Board
2. Governor's Office of Planning & Research
3. Parks and Recreation

C. Regional Agencies

1. Bay Area Air Pollution Control District
2. Metropolitan Transportation Commission

D. City Agencies

1. Chief Administrative Officer
2. Community Mental Health Services
3. Emergency Services
4. Fire Department
5. Human Rights Commission
6. Landmarks Preservation Advisory Board
7. Parking Authority
8. Port of San Francisco
9. Public Health Department
10. Public Utilities Commission
11. Public Works
12. Real Estate Department
13. Redevelopment Agency

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2. Bakas, John
3. Brinton, William
4. Foundation for San Francisco Architectural Heritage
5. Hartman, Chester
6. National Trust for Historic Preservation
7. Riss, Dan
8. San Francisco Ecology Center
9. San Francisco Tomorrow
10. Smith, S.M.
11. Wright, Gerald

A. FEDERAL AGENCIES

UNITED STATES DEPARTMENT OF AGRICULTURE

SOIL CONSERVATION SERVICE

P. O. Box 1019, Davis, CA 95616

April 15, 1974

Mr. James P. Jaquet
Program Manager, Area C
Operations Division
U.S. Department of Housing & Urban Development
One Embarcadero Center, Suite 1600
San Francisco, California 94111

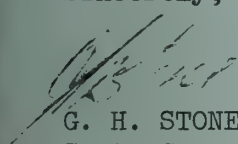
Dear Mr. Jaquet:

This recognizes receipt of the draft environmental statement "Yerba Buena Center" for review and comment by the Soil Conservation Service.

Our review indicates that most areas of environmental concern created by the project are strictly urban and not within the realm of Soil Conservation Service expertise and responsibility. The statement coverage of soils, wildlife and vegetation and other natural resource elements appears adequate as related to the nature of the proposed project.

The project should have no effect on going or contemplated programs of the Soil Conservation Service. We appreciate the opportunity provided for review and comment.

Sincerely,


G. H. STONE
State Conservationist





DEPARTMENT OF THE ARMY
SAN FRANCISCO DISTRICT, CORPS OF ENGINEERS
100 McALLISTER STREET
SAN FRANCISCO, CALIFORNIA 94102

REPLY TO
ATTENTION OF:

SPNED-E

25 April 1974

Mr. James P. Jaquet
Program Manager, Area C
Operations Division, HUD
One Embarcadero Center, Suite 1600
San Francisco, CA 94111

Dear Mr. Jaquet:

This is in response to your letter dated 21 March 1974 (reference number 9.1 PM-C) concerning review and comment on the draft environmental impact statement for the Yerba Buena Center Urban Renewal Project (Calif. R-59) San Francisco, California.

The above mentioned environmental statement was furnished to our District, for direct reply to you, through the Office of the Chief of Engineers.

The project does not conflict with any current or proposed San Francisco District, Corps of Engineers projects. We have no further comment.

Sincerely yours,

H. E. PAPE, JR.
Chief, Engineering Division



UNITED STATES DEPARTMENT OF COMMERCE
The Assistant Secretary for Science and Technology
Washington, D.C. 20230

May 7, 1974

Mr. James P. Jaquet
Program Manager, Area C
Operations Division
U.S. Department of Housing and
Urban Development
One Embarcadero Center, Suite 1600
San Francisco, California 94111

Dear Mr. Jaquet:

The draft environmental impact statement for Yerba Buena Center Urban Renewal Project San Francisco, California, which accompanied your letter of March 21, 1974, has been received by the Department of Commerce for review and comment.

The statement has been reviewed and the following comments are offered for your consideration.

The study indicates that 135 businesses were displaced during the period from January 2, 1971, through June 30, 1973. Of these, 63 relocated within San Francisco, 27 relocated outside the city, and 45 discontinued operations. It is estimated that another 130 businesses will be dislocated because of the proposed renewal project and that of these 130, 29 to 39 will discontinue operations. The remaining businesses are expected to continue in operation although some will encounter significant difficulty.

The statement does not provide ethnic breakout relative to the operations of these businesses although it is our understanding that a significant number are operated by members of minority groups. Accordingly, in light of the responsibilities and functions of this Department's Office of Minority Business Enterprise, we strongly urge that the statement be expanded to address the issues raised by dislocation of minority business firms in the impacted area if Federal funds are to be expended.

*Refer
to pp. 96
and 97*

- 2 -

Thank you for giving us an opportunity to provide these comments, which we hope will be of assistance to you. We would appreciate receiving a copy of the final statement.

Sincerely,

Sidney R. Galler
by Gene Levere

Sidney R. Galler
Deputy Assistant Secretary
for Environmental Affairs



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IX
100 CALIFORNIA STREET
SAN FRANCISCO, CALIFORNIA 94111

Mr. James P. Jaquet
Program Manager, Area C
Operations Division
US Department of Housing & Urban Development
One Embarcadero Center, Suite 1600
San Francisco CA 94111

MAY 29 1974

Dear Mr. Jaquet:

The Environmental Protection Agency has received and reviewed the draft environmental impact statement for the following proposed action, Yerba Buena Center, Urban Renewal Project, San Francisco, California.

EPA's comments on the draft statement have been classified as Category ER-2. Definitions of the categories are provided on the enclosure and our extensive comments will be found on a second enclosure. The classification and the date of EPA's comments will be published in the Federal Register in accordance with our responsibility to inform the public of our views on proposed Federal actions under Section 309 of the Clean Air Act. Our procedure is to categorize our comments on both the environmental consequences of the proposed action and the adequacy of the impact statement at the draft stage.

EPA appreciates the opportunity to comment on this draft statement and requests two copies of the final statement when available.

Sincerely,


Paul DeFalco, Jr.
Regional Administrator

Enclosures

cc: Regional Administrator, HUD
Council on Environmental Quality, Wash., D.C. 20460
Attn: Editor, 102 Monitor

Environmental Impact of the Action

LO--Lack of Objections

EPA has no objections to the proposed action as described in the draft impact statement; or suggests only minor changes in the proposed action.

ER--Environmental Reservations

✓ EPA has reservations concerning the environmental effects of certain aspects of the proposed action. EPA believes that further study of suggested alternatives or modifications is required and has asked the originating Federal agency to reassess these aspects.

EU--Environmentally Unsatisfactory

EPA believes that the proposed action is unsatisfactory because of its potentially harmful effect on the environment. Furthermore, the Agency believes that the potential safeguards which might be utilized may not adequately protect the environment from hazards arising from this action. The Agency recommends that alternatives to the action be analyzed further (including the possibility of no action at all).

Adequacy of the Impact Statement

Category 1--Adequate

The draft impact statement adequately sets forth the environmental impact of the proposed project or action as well as alternatives reasonably available to the project or action.

Category 2--Insufficient Information

✓ EPA believes that the draft impact statement does not contain sufficient information to assess fully the environmental impact of the proposed project or action. However, from the information submitted, the Agency is able to make a preliminary determination of the impact on the environment. EPA has requested that the originator provide the information that was not included in the draft statement.

Category 3--Inadequate

EPA believes that the draft impact statement does not adequately assess the environmental impact of the proposed project or action, or that the statement inadequately analyzes reasonably available alternatives. The Agency has requested more information and analysis concerning the potential environmental hazards and has asked that substantial revision be made to the impact statement.

If a draft impact statement is assigned a Category 3, no rating will be made of the project or action, since a basis does not generally exist on which to make such a determination.

Comments on the draft environmental statement for Yerba Buena Center, Urban Renewal Project, San Francisco, California.

Air Quality

1. The consideration of the effect of the project on ambient air quality is deficient in the following respects:

- a. The traffic on adjacent and approaching city streets should be analyzed to determine the highest one-hour and the highest 8-hour concentrations of carbon monoxide (CO) that might be expected on the walkways and pedestrian crosswalks. The location, frequency of occurrence, and time of day of the high concentrations should be indicated. The calculated concentrations should account for a background component and a project related component. Are there periods when traffic could conceivably be stalled due to large volumes of vehicles desiring entrance or egress from the project? When and how often are these congested periods expected?
- b. It is assumed that the concentrations listed in Tables VII and VIII (pages 123 and 124) have been calculated during the "Average and Peak" hour periods listed in Appendix M under "Basic Meteorological Parameters". What is the justification for the selection of the listed time periods? Do these correspond with peak traffic periods or do they represent the "worst-case" meteorological conditions? Both traffic and meteorological conditions probably vary with the month or season. When are the conditions listed expected to occur and how often?
- c. The VMT analysis and the associated derivation of emissions from motor vehicles assume that the current service level for parking and access streets will be maintained. There appears to be no provision that current limits on parking and access streets can effectively be maintained through efforts of project-related agencies. Breaking these limits would, by admission in the draft EIS, increase VMT and emissions considerably over given predictions (page 104, Summary). A "worst-case" analysis of mobile source emissions associated with such improvements and construction should be made.

refer to
p. 142

refer to
p. 142

refer to
pp 107-111
and
p 142

- d. EPA is concerned about the probable impact of emissions of hydrocarbons resulting from the proposed project. Even with the assumption of maintaining the current approximate number of parking spaces and level of access road service, the projected hydrocarbon emissions will apparently exceed the Federal 3-hour hydrocarbon standard. The YBC project will cause 47 tons of hydrocarbons to be emitted each year. However, EPA's Transportation Control Plan for the San Francisco Air Quality Control Region promulgated on November 12, 1973 sets forth a regulatory framework for a control strategy which requires a 78% reduction in base year reactive hydrocarbon emissions in order to achieve the National Ambient Air Quality Standard for photochemical oxidant.

Implementation of this Plan was deferred by EPA

In view of the projected hydrocarbon emissions and the effect on the above control strategy, EPA recommends that the project be developed to assure a phasing of the sources of VMT increases (and thus hydrocarbon emissions) with the availability of public transit serving the project. Further, EPA recommends that a parking management plan be developed for the purpose of controlling the availability of parking to moderate the projected increases in VMT and to further induce public transit ridership. Such a parking management plan may be an appropriate mechanism to address the full range of air quality issues: traffic levels on city streets; carbon monoxide concentrations; VMT increases; hydrocarbon emissions; and the attendant impacts on ambient air quality.

refer to p. 110 and Parking Management Statement prepared by the Chief Administrative Officer

2. The YBC project represents an important opportunity to achieve air quality goals at the same time as the urban renewal objectives are achieved. The nature and magnitude of the YBC allows the application of various innovative design concepts. EPA suggests the following types of ideas to reduce VMT and induce transit ridership: inclusion of transit cost in public event tickets; reimbursement of transit costs to shoppers; reducing the number of available parking spaces as public transit is increasingly available; for single events, methods might include use of exclusive bus lanes, ramp metering, reduced transit fares, increased bridge toll fares, and special radial bus service with peripheral parking.

refer to p. 110 and the Parking Management Statement prepared by the Chief Administrative Officer

3. The estimate of the total emissions associated with the YBC project do not include impacts which could result from the use of fuel oil. Natural gas curtailments could necessitate the use of fuel oil. The worst-case analysis of emissions resulting from use of fuel oil should be included.
4. The air quality impacts during the excavation/construction phase are addressed in the draft statement. EPA is concerned that expected particulate emissions may exceed the 24-hour standard. While excavation projects of this magnitude commonly experience dust problems, the downtown location of this project warrants careful consideration of all reasonable mitigating measures.

EPA notes that as of June 30, 1973, 72.4% of the building demolition has been completed. For all remaining demolition, the draft statement should discuss the emissions of hazardous air pollutants which may result from demolition. For example, will building demolition involve the handling of asbestos, and if so, what measures will be taken to mitigate the release of this material into the atmosphere? The National Emission Standards for Asbestos (40 CFR 61.22) require that certain procedures be followed in the demolition of structures or the handling and salvaging of building appurtenances which are insulated or fireproofed with asbestos. HUD should ensure that the Redevelopment Agency is aware of these requirements.

5. The following clarifications should be made in the text of the Air Quality Section and Appendix M:

- a. Throughout the text units appear such as vglm and hr/sec. We presume that these should be corrected to read ug/m³ and m/sec respectively.
- b. In Tables I, III, V, and VI (pages 116, 118, 120, and 121), the percentages listed in the tables appear to be inconsistent with the percentages in the footnotes. For what year and geographical area do the percentages in the footnotes apply? Please list the total emissions and respective percentages in tabular form and give the reference from which the totals were obtained. The tables as they exist are confusing because they do not provide enough information on the basis of the calculations and the years and geographical areas which apply to the percentages.

*Corrections
made in
text*

- c. The projected emissions in 1982 from natural gas consumption for the YBC project differ in Tables III and VI. Please explain with sample calculations and references how the projected emissions were derived.

Noise

*Measurements
were taken
by HUD for
the Final
Statement
refer to
Appendix M
and
p. 123*

The draft statement is inadequate from a noise viewpoint. The section on "Approach and Method" on page 106 refers to "extensive sound measurements taken by the URS Research Company for the State-required environmental impact report". The results of those measurements are not supplied.

Present ambient sound levels in the project area, as well as predicted sound levels are needed in order to review this project. A mere listing of FHWA design noise levels, HUD criteria, and sections of the city noise ordinance do not fulfill the requirements of a noise analysis.

*These
have been
provided;
refer to pp
118, 119
and
Appendix M*

In the section entitled "Impact" on page 109, the EPA questions the source of the L₅₀ levels stated. In addition, in order to fully assess noise levels, an L₁₀ or preferably an L₁ of noise levels exceeded should be provided. CNEL or L_{dn} (day night average sound level) contours should be provided. The CNEL and L_{dn} are approximately equivalent. In EPA's recently published document entitled "Information on Levels of Environmental Noise Requisite to Protect the Public Health and Welfare With an Adequate Margin of Safety," the EPA recommended the following levels be used as long-term goals by planners in State and local agencies to protect citizens' health and welfare:

L _{dn} 55dB	exterior - residential areas
L _{dn} 45dB	interior - residential areas

*refer to
pp.
125-127*

The State of California's Department of Housing and Community Development recently recommended sound insulation standards for new housing. Recommended actions in 60 CNEL areas and above were to insulate all living areas to a level of 45 CNEL or below. A discussion of the impact of this State law is needed. Projected sound levels around areas where the housing projects for elderly residents will be placed are especially crucial.

Solid Wastes

The draft EIS overstates negative aspects of the project because the projections are based on past solid waste management practices. Such practices are changing and the projections on the impacts of the YBC should reflect modern solid waste management.

2. per
2. p. 50
New procedures for handling waste and new disposal facilities will cause the impacts of this project to be less severe than indicated. For instance, the present Mountain View site is now applying for an increase in size. This increase, if approved, will extend the service period of this site by at least one year. The operators of the San Francisco waste collection system now are attempting to negotiate for two sites for sanitary land fills when the Mountain View site is exhausted. The ABAG Regional Solid Waste Recycling-Composting Project, and the trend toward using the combustible portion of the solid waste for energy generations should reduce the quantity of solid waste which must be disposed of.

refer
to p 50
and
Appendix
I
It should be noted, however, that the draft EIS did not demonstrate that the project designers will be required to use the latest concepts in solid waste handling to permit maximum operating efficiency and opportunity for resource recovery (i.e., source separation of paper and compaction, bulk waste container handling). For instance, some buildings and complexes recently built do not have bulk solid waste transport facilities for upper floors of the building, and access alleys are too narrow for waste collection-compaction vehicles. EPA suggests that project designers include such facilities in the building and grounds design so that maximum operating efficiency can be attained.

Format

Amended
in Final
Statement
The draft environmental statement does not conform to the Council on Environmental Quality Guidelines for the Preparation of Environmental Impact Statements (38 Federal Register 147, pages 20550-20562, August 1, 1973). While this is a minor point, the review of this environmental statement would be considerably facilitated by such an organizational framework.



DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
REGIONAL OFFICE
50 FULTON STREET
SAN FRANCISCO, CALIFORNIA 94102

OFFICE OF
THE REGIONAL DIRECTOR

Office of Environmental Affairs

May 1, 1974

Mr. James P. Jaquet
Program Manager, Area C
Operations Division
U.S. Department of Housing & Urban Development
One Embarcadero Center, Suite 1600
San Francisco, California 94111

Dear Mr. Jaquet:

The draft Environmental Impact Statement for the Yerba Buena Center has been reviewed in accordance with departmental procedures as required by Section 102(2)(c) of the National Environmental Policy Act (PL 91-190).

In addition to reviewing the material submitted, members of the staff of this office completed a walk-through site visit of the proposed project. It was noted that the existing and proposed low cost housing is located on the periphery of the project, amidst a heavily industrialized section. There appear to be no retail establishments where residents of this housing can easily obtain food, medications and other services. Most of the residents appear to be pensioners or other low fixed income persons with considerable limitations on their earning power. A large percentage would also appear to be physically handicapped to the point that their mobility is greatly restricted.

We note reference to the services available to residents from community groups such as the Filipino-American Neighborhood Association and the Filipino Education Center. The former has already relocated a considerable distance from the area and certainly is not easily available to the remaining residents. The latter, we understand, may be forced to relocate, probably out of the area.

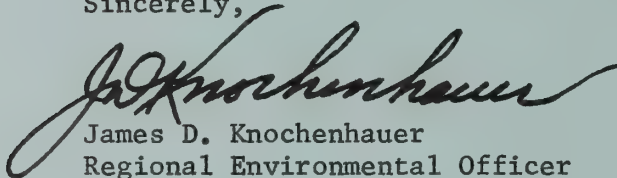
Lincoln School would appear to be in a particularly susceptible position to receive considerable amounts of dirt, dust and noise during the construction phase of the center. Located near the James Lick Freeway, the school is already subjected to high noise and air pollution levels which may be near the maximum tolerance level.

We must express concern over the lack of mitigating measures relative to the above items and trust that in the implementation of the project that appropriate actions will be taken. We suggest consideration be given to

*refer to
p. 88*
the development of a self-contained retail shopping center designed for the low income resident and not for the tourist or convention delegate. We also suggest that air and noise levels be monitored at Lincoln School and adequate safeguards be initiated if maximum tolerances are exceeded.

The opportunity to review this statement has been appreciated. We look forward to receipt of the final.

Sincerely,


James D. Knochenhauer
Regional Environmental Officer

cc: P. Hayes
CEQ



FR-74/440

UNITED STATES
DEPARTMENT OF THE INTERIOR

OFFICE OF THE SECRETARY

PACIFIC SOUTHWEST REGION

BOX 36098 • 450 GOLDEN GATE AVENUE

SAN FRANCISCO, CALIFORNIA 94102

(415) 556-8200

May 15, 1974

Mr. James P. Jaquet
Program Manager, Area C
Operations Division
Department of Housing and Urban Development
One Embarcadero Center, Suite 1600
San Francisco, California 94111

Dear Mr. Jaquet:

The Department of the Interior has reviewed your draft environmental statement for the Yerba Buena Center Urban Renewal Project in San Francisco.

All have been consulted
Although the draft statement indicates that the National Trust for Historic Preservation was consulted in identifying historic structures located in the project area, the final statement should also indicate consultation with the State Historic Preservation Officer. Communications with Dr. Michael J. Moratto and Mr. James Heid of the Adan E. Treganza Anthropology Museum of California State University at San Francisco, coupled with the letter by John L. Frisbee, III in Appendix K of the draft statement, strongly indicate that both the St. Patrick's Church and the Jessie Street Substation may qualify for listing on the National Register of Historic Places. If such is the case, compliance with Section 2(b) of Executive Order 11593 should be demonstrated.

refer to 673
In addition, archeologists at California State University at San Francisco have expressed concern over the probability that subsurface archeological resources, both of historic and prehistoric nature, might be present in the project area. We suggest that the Treganza Museum be informed before further land leveling or excavation activities take place. Further, because of the high potential for significant subsurface resources, we recommend that a program of archeological monitoring of all earth-moving activities be instituted.

refer to
p. 78
and Appendix
G
HUD is also
pursuing the
possibility
of funding
If significant archeological resources are encountered during construction activities, adequate time should be allowed for their scientific study and removal. We suggest that identified archeological resources be evaluated as to their potential for nomination to the National Register.

If resources are found to be of National Register quality, compliance with Section 2(b) of Executive Order 11593 should be demonstrated.

of archeological activities by the Dept of Interior.

refer to
p. 52
Although we believe the statement is reasonably adequate and accurate in regard to water resources, no mention is made of the increase in sediment transport to San Francisco Bay that will occur during demolition and construction phases. Although this may be minor, we suggest that the final statement describe the degree of sediment transport.

We appreciate the opportunity to review and comment on the draft statement.

Cordially,



Webster Otis
Special Assistant to the Secretary

cc: OEPR, Washington, D. C.
USGS, Reston, Virginia
NPS, San Francisco

B. STATE AGENCIES

Memorandum

To : Honorable John R. Teerink, Director
Department of Water Resources
1416 Ninth Street
Sacramento, CA 95814

Attention: Mr. Ken Fellows

Date : May 8, 1974

Subject: Yerba Buena
Center Urban Renewal
Project-San Francisco
San Francisco County
SCH. No. 74040166

From : Air Resources Board

The proposed project involves redevelopment of an area of 87 acres in downtown San Francisco, adjacent to and south of Market Street.

As developed in the environmental impact report, the increase of emissions to the atmosphere as a result of this project will have an insignificant impact on air quality; however, the proponent needs to recognize the cumulative effect this and similar projects will have on air quality in this critical air area. While it may not be presently possible to quantify the emissions generated by cumulative projects, a general discussion thereof in the report would help the decision makers understand the overall potential impact on air quality in the project area.

As shown in the EIR, total parking in the project area will be reduced by 200 spaces (4,300 to 4,100). The project sponsor needs to be aware of the implementation of State and Federal rules and regulations regarding parking facilities, even though they are only in the formative stages. It is suggested that close liaison be maintained with local agencies and EPA so this project, when completed, will incorporate facilities which satisfy applicable regulations.

Consideration of alternate designs for the movement of people and goods is necessary under CEQA as a way of achieving and maintaining health based air quality standards. To this end, the project proponent needs to consider all possible use of available transit facilities and explore the use of people moving systems which will allow full use of the proposed facilities in the project area without generating emissions that will conflict with attainment and maintenance of State and Federal air quality standards.

William C. Lockett, Chief
Evaluation and Planning

RECEIVED

MAY 17 1974

Office of Planning &
Research

refer to
p. 134

Parking has
been further
reduced;
discussions
have been
held with
EPA

refer to
p. 109, 110
and to the
parking
management
study
required by
the Chief
Administrative
Officer

W. C. Lockett



State of California

GOVERNOR'S OFFICE

OFFICE OF PLANNING AND RESEARCH

1400 TENTH STREET

SACRAMENTO 95814

RONALD REAGAN
GOVERNOR

June 14, 1974

Mr. James P. Jaquet
Dept. of HUD
Operations
1 Embarcadero Center
Suite 1600
San Francisco, CA 94111

Dear Mr. Jaquet:

SUBJECT: SCH 74040166 - YERBA BUENA CENTER URBAN RENEWAL PROJECT

The above listed project was received in this office and disseminated to various State Departments for review. The attached comments were generated by the 1) Air Resources Board and 2) Department of Parks and Recreation and cleared through the Agency Secretaries.

- 1) Air Resources Board. For further information regarding this comment, please contact Mr. William C. Lockett, 1709 11th Street, Room 104, Sacramento, CA 95814, (916) 322-6072.
- 2) Department of Parks and Recreation. For further information regarding this comment, please contact Mr. James P. Tryner, 1416 9th Street, Sacramento, CA 95814, (916) 322-2382.

The comments are aimed at assuring that the project is coordinated with appropriate state agencies and that the environmental impact of the project is fully evaluated.

This letter verifies your compliance with the environmental review requirements under the National Environmental Policy Act and/or the California Environmental Quality Act.

Sincerely,

Edward A. Loucks
Management Systems Specialist
State Clearinghouse

EAL:jlw

cc: Mr. Robert J. De Monte, OPR
Mr. William C. Lockett
Mr. Waide Egner, ABAG

Ms. Mary Schell, Library
Mr. James P. Tryner
Ms. Yvonne Scott, HUD

Memorandum

To : Mr. James P. Tryner, Chief
Resource Management and
Protection Division

Date : May 10, 1974

Subject: Schedule No. 74040166,
Yerba Buena Center
Urban Renewal Project,
City of San Francisco

From : Department of Parks and Recreation

Our review of the State Clearinghouse Notice of Intent No. 74040166 and the Draft Environmental Impact Statement for the proposed Yerba Buena Center Urban Renewal Project, discloses deficiencies with regards to the preservation of historic resources.

*refer to
pg. 75-77,
appendix K,
and subse-
quent corres-
pondence with
this office.*

The Draft Environmental Impact Statement fails to adequately identify places of architectural and historical interest within the Yerba Buena Center by excluding their names, location, and final disposition from the main body of the text. The sponsor's statement on page 73 that, "efforts have been made to preserve and rehabilitate economically sound and architecturally significant structures" does not reveal what additional alternatives are available should rehabilitation measures not be feasible. The report should more fully describe the extent to which preservation and rehabilitation of existing structures is proposed.

*we have
been
consulted*

The attached copy of our correspondence, dated February 25, 1974, suggested that several organizations be consulted with regards to potential historical, architectural, and cultural values in the proposed redevelopment area. The draft fails to adequately comment upon the recommendations of the National Trust for Historic Preservation regarding the Mission Street Complex.

*refer to
pg. 75-77,
appendix K,
and subse-
quent
correspondence
with this
office.*

The sponsor should be aware that the Jessie Street Substation has been submitted for nomination to the National Register of Historic Places and that other sites in the area may also possess National Register potential. In compliance with Executive Order 11593, the agency should identify any additional sites or structures which have potential for placement on the National Register. Our letter of February 25, 1974 noted the agency's responsibility for compliance with Executive Order 11593. The procedures for compliance are published in the February 19, 1974 issue of the Federal Register.

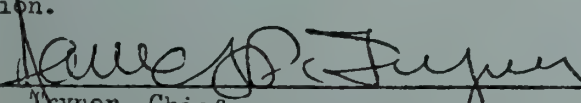


Russell W. Porter, Chief
Grants and Statewide Studies Division

F-4/8

Mr. Fellows:

Please consider these to be the official comments of the Department of Parks and Recreation.


James P. Tryner, Chief
Resource Management and Protection Division

5/14/74

C. REGIONAL AGENCIES



BAY AREA AIR POLLUTION CONTROL DISTRICT

May 10, 1974

ALAMEDA COUNTY
Joseph P. Bort
Robert T. Plowright

CONTRA COSTA COUNTY
Robert W. Hoyer
James P. Kenny

MARIN COUNTY
Peter R. Arrigoni
(Vice Chairman)
Stephen Fraser

NAPA COUNTY
John F. Aquila
John Tuteur

SAN FRANCISCO COUNTY
Joseph L. Alioto
Peter Tamaras
(Secretary)

SAN MATEO COUNTY
Robert R. St. Clair
Warren Steinkamp

SANTA CLARA COUNTY
Victor Calvo
William R. Jelavich

SOLANO COUNTY
James Lemos
Robert Scofield

SOLANO COUNTY
Gerald M. Poznanovich
(Chairman)
Robert Theiller

Mr. James P. Jaquet
Program Manager, Area C
Operations Division
US Department of Housing & Urban Development
One Embarcadero Center, Suite 1600
San Francisco, CA 94111

RE: Draft Environmental Impact Statement, Yerba Buena Center

Dear Mr. Jaquet:

This responds to your Department's letter dated March 21, 1974, requesting that we review and comment on the above referenced EIS.

We offer for your consideration the following comments:

1. We are in general agreement with the overall methodology and approach used to project air quality concentrations and we believe the air quality concentrations can be accepted as reasonably representative of future air quality given the assumptions underlying the analysis. We would like to take this opportunity to note, however, that projections of air quality are usually open to some discussion in light of such unknowns as:
a) the degree of future effectiveness of air pollution control devices and measures to reduce total vehicle miles traveled and b) the extent, if any, to which emission standards may be relaxed to reduce fuel consumption.
2. We note that the EIS focuses on air quality in year 1982 at the Central Plaza location. Equal attention to air quality concentrations surrounding the site during construction and early years of operation is also important, particularly in light of the length of the construction phase and the incomplete effectiveness of pollution control devices prior to 1982, even under the most favorable assumptions. In this regard, we call attention to the interim air quality concentrations presented in the Draft EIS prepared by the City of San Francisco entitled "Yerba Buena Center Public Facilities and Private Development" dated May, 1973, (primarily page V-I-21). This report considered 1976 air quality as well as 1982 and indicated excesses of the air quality standards, particularly

refer to p. 143

*refer to p. 143
and pp. 146, 147*

for NO₂ (when taken as 35% of total NO_x) and CO and at street level in places other than the Central^x Plaza. Admittedly, 1976 may be becoming an unrealistic date, but possible consideration should be given to something earlier than 1982 and to the other locations.

- The City has been reminded of this requirement.*
3. A major factor in the NO_x emissions in the area is the combustion of fuel for space heating. The City of San Francisco report indicates a central heating plant for the public facilities (not including the non-public) which will have a capacity in the range of sixty million Btu/hour. We wish to call to your attention that any single space heating plant, whether built all at once or in increments, is subject to this District's permit authority if it exceeds ten million Btu/hour.

In light of the size of the project, its projected air quality impact and the long construction phase, we urge that steps be taken, and embodied in contract conditions, to minimize contaminant concentrations and public exposure time. Such steps include the following:

- refer to pp. 105, 109-110, and 147*
- a. Wetting down the construction site during excavation to reduce particulate emissions.
 - b. Use of the latest available pollution control devices on all construction equipment and machinery used at the site.
 - c. Elimination of construction vehicles from public streets during peak commuting hours to reduce traffic congestion potential.
 - d. Encourage the use of public transit by construction workers to help relieve the traffic congestion which will result from changing present vacant lot parking areas to construction sites.

This study was considered to be beyond the scope of this report and the Federal responsibility; however, refer to the Parking Management Statement prepared by the Chief Administrative Officer.

Lastly, although one set of EIS assumptions results in a net reduction in peak-hour vehicular traffic in the vicinity of the project in 1982 and, notwithstanding the anticipated reliance on transit usage, it is suggested for further consideration that a study be undertaken to determine the effects of requiring staggered working hours (toward the later side of commute hours) for employees destined to the completed project. The primary purposes of the study would be: a) to determine if the potential for traffic congestion could be reduced further and b) to determine the impact on transit usage.

We hope that the above comments will be of value to you and we will be happy to answer any questions concerning our response.

Sincerely yours,

A handwritten signature in cursive script, appearing to read "Milton Feldstein".

Milton Feldstein
Deputy Air Pollution Control
Officer

MF:ac

cc Air Resources Board
Association of Bay Area Governments
Department of Planning

MTC Metropolitan Transportation Commission

May 17, 1974
W.I. 5.32

Mr. James P. Jaquet
Program Manager, Area C
Operations Division
U.S. Department of Housing & Urban Development
One Embarcadero Center, Suite 1600
San Francisco, CA 94111

RE: Yerba Buena Center, DEIS

Dear Mr. Jaquet:

The referenced DEIS has been reviewed by MTC staff. The following are the comments.

refer to p. 92
A. Since none of the considered alternatives address the problems of business relocation, it is requested that such problems be analyzed. Analysis seems warranted since there will be negative impacts on 28 to 37 percent of the business presently in operation in the YBC area.

B. Analysis of transit service to, from, and around YBC is needed. The following are a few examples:

- refer to pp. 109-110 and the Parking Management Statement prepared by the Chief Administrative Officer*
1. Signalization through the YBC area which is pre-emptory in favor of transit.
 2. Exclusive full-time transit-only lanes on Third, Fourth, Howard and Folsom Streets. This is in accordance with recommendations in the BART/Muni Coordination Project.
 3. Various amenities to enhance transit, including bus shelters at key loading and transfer points within YBC.
 4. Extension of Muni lines which serve the Richmond and Sunset Districts should be undertaken in cooperation with Muni. Address directly the impact of YBC upon individual Muni lines serving the area, especially at peak periods.

C. In the interest of pedestrian orientation, the following are requested:

- refer to p. 106*
1. A detailed analysis of pedestrian flows, and resolution of the pedestrian/automobile conflicts around YBC.

*refer to
p. 68*

2. Analysis of services and facilities for the handicapped at YBC.

Questions regarding this matter can be directed to Mr. Frank Lee at MTC (849-3223, ex. 31).

Very truly yours,

METROPOLITAN TRANSPORTATION
COMMISSION


N. A. Gage

Assistant Director

NAG:cah

D. CITY AGENCIES



OFFICE OF

CHIEF ADMINISTRATIVE OFFICER

THOMAS J. MELLON
CHIEF ADMINISTRATIVE OFFICER

289 CITY HALL
SAN FRANCISCO
CALIFORNIA 94102

May 22, 1974

Mr. James H. Price, Director
U.S. Department of Housing and
Urban Development
One Embarcadero Center, Suite 1600
San Francisco, California 94111

Dear Mr. Price:

On March 21, 1974, copies of the Draft Environmental Impact Statement for Yerba Buena Center were sent to this office and other City departments and agencies for review and comment. Shortly thereafter, I requested that all City comments be forwarded to me for consolidation. I now enclose those comments for your consideration during the preparation of the Final Environmental Impact Statement for Yerba Buena Center.

The Draft Statement is, in my opinion, comprehensive and adequate in all critical areas of concern. The City concurs with the general conclusions of the report. Differences over specific findings are itemized in the comments enclosed, and principal differences are summarized below.

Financing

refer to pp. 149
The Draft Statement acknowledges the use of very conservative figures in its estimates of the beneficial economic impacts of Yerba Buena Center. The draft should make it clear that projections represent a minimum level of economic performance only.

Parking and Traffic

refer to pp. 195-100 and 107-110
The figures used on existing and proposed parking reflect conditions in March 1972 and should be updated. In addition, more recent information is now available regarding the modal split between private auto and public transit use. Accordingly the modal split should be revised. Both of these changes will have an impact on the traffic generation in Yerba Buena Center and ultimately on the level of air pollution.

Mr. James H. Price

-2-

May 22, 1974

Housing

*refer to
pp. 81-85
and
188 + 192*

The Draft Statement indicates that the amount of low income housing in the City will be reduced by the construction of Yerba Buena Center. It should be noted that the non-cash grants-in-aid generated by the project will be used in part to facilitate the construction by low-to-moderate income housing elsewhere in the City. In addition it should be noted that the 1500+unit program, developed as part of the TOOR settlement, will add to the long term supply of low-income units in the City, since many of the units removed were substandard and deteriorating.

Design

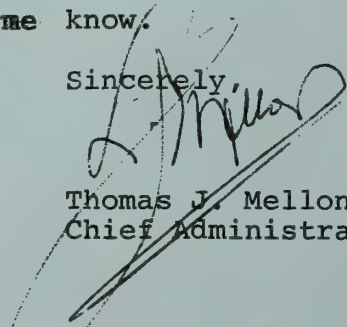
*refer
to p. 74*

From the beginning, the environmental quality and appearance of Yerba Buena Center have been major concerns in planning the project. Many design concepts have been carefully considered and tested. The current Master Plan represents the optimum design solution, given various practical constraints. It should be remembered, however, that the Master Plan is not a final design. It is an indication of future land use. Various buildings, including the hotel, apparel mart, and Fourth and Folsom office building, will be subjected to continuous architectural review by the City's Executive Architect for the project and Urban Design Consultant and the Redevelopment Agency. When complete we are certain that the project will create a unique physical environment and will establish a new standard of design excellence in the South of Market.

In addition to these comments, a letter was received from Supervisor Robert Mendelsohn indicating his satisfaction with the Adequacy and completeness of the draft EIS. Supervisor Dorothy von Beroldingen forwarded a number of informal notes which are being handled by City staff at this time.

If we can provide additional assistance in the preparation of the Final Statement, please let me know.

Sincerely,


Thomas J. Mellon
Chief Administrative Officer

Enclosure

Officials Responding to EIS Draft

Arthur Carfagni, Jr., M.D.
Director, Northeast Mental Health Center

Edward P. Joyce
Director, Mayor's Office of Emergency Services

Keith P. Calden
Chief, San Francisco Fire Department

William Becker
Director, San Francisco Human Rights Commission

Arthur S. Becker
Director, San Francisco Parking Authority

Miriam E. Wolff
Port Director, Port of San Francisco

Francis J. Curry, M.D.
Director of Public Health

John C. Farrell
Secretary and Assistant General Manager,
San Francisco Public Utilities Commission

S. Myron Tatarian
Director of Public Works

Wallace Wortman
Director, Real Estate Department

David L. Collins
Area Director, Y.B.C. Site Office
San Francisco Redevelopment Agency

Lance Burris
Project Director, Y.B.C. Public Facilities
San Francisco Redevelopment Agency

Officials Having No Comment on EIS Draft

Eneas Kane
Director, San Francisco Public Housing Authority

Allan B. Jacobs
Director of Planning

Walter Newman
President, San Francisco Planning Commission

Donald Scott
Chief of Police

Joseph Caverly
General Manager, Recreation and Park Department

Richard Hongisto
Sheriff

CITY AND COUNTY OF SAN FRANCISCO
DEPARTMENT OF PUBLIC HEALTH
COMMUNITY MENTAL HEALTH SERVICES

NORTHEAST MENTAL HEALTH CENTER
121 Leavenworth
SAN FRANCISCO, CALIF. 94102
441-2221

RECEIVED
1974 MAY - 2 PM 1:22
CHIEF ADMINISTRATIVE
OFFICER

April 26, 1974

Thomas J. Mellon
Chief Administrative Officer
289 City Hall
San Francisco, California 94102

Dear Mr. Mellon:

*refer to
p. 74*

Concerning the Draft Environmental Impact Statement from the Department of Housing and Urban Development, I would hope that the plans would take carefully into account the topography and innate charm of San Francisco and the need to protect this quality.

*refer to
pp. 81-85*

As a person interested in and concerned about the community and its problems, I also would hope that the need for quantity and quality low cost housing would be accommodated as a priority in this plan.

Very truly yours,


Arthur Carfagni, Jr., M.D.
Director, NECMHC

AC/HG

cc: Francis J. Curry, M.D.

Held - YBC



OFFICE OF THE MAYOR

EMERGENCY SERVICES

CITY AND COUNTY OF SAN FRANCISCO

3RD FLOOR • 6221 GEARY BOULEVARD
SAN FRANCISCO, CALIFORNIA 94118
668-5404

April 11, 1974

RECEIVED
1974 APR 15 AM 8:40
CHIEF ADMINISTRATIVE
OFFICER

JOSEPH L. ALIOTO
MAYOR

EDWARD P. JOYCE
DIRECTOR

Mr. Thomas J. Mellon
Chief Administrative Officer
289 City Hall
San Francisco, Ca. 94102

Dear Mr. Mellon:

This letter is in response to your letter of March 26, 1974, concerning comments on the Draft Environmental Impact Statement for the Yerba Buena Center.

I have reviewed the Draft EIS and am pleased to note that careful consideration has been given with regard to the impact of a major earthquake.

It is highly desirable to have a public facility in the location proposed which can be utilized as a mass care facility. The proximity to the area where the greatest potential for casualties can occur, makes this facility an urgent necessity where there is a decided deficit in the number of facilities offering this capability.

YBC will be a decided asset to our capability in a major disaster, even outside its programmed function.

Sincerely,

Edward P. Joyce
Director

EPJ:js

*refer to
p. 42*

CITY AND COUNTY OF SAN FRANCISCO
SAN FRANCISCO FIRE DEPARTMENT

OFFICE
CHIEF OF DEPARTMENT

RECEIVED

1974 APR -9 AM 10:46

CHIEF ADMINISTRATIVE
OFFICER



260 GOLDEN GATE AVE,
SAN FRANCISCO, CA. 94102

April 3, 1974

Mr. Thomas J. Mellon
Chief Administrative Officer
Room 289 - City Hall
San Francisco, California 94102

Dear Mr. Mellon:

This is written in response to your request, dated March 26, 1974, asking for comment on the U. S. Department of Housing and Urban Development's Draft Environmental Impact Statement for the Yerba Buena Center.

After careful review nothing was found in the statement that could affect the Fire Department either positively or negatively.

Without a doubt, such an intensive document must contain information that must be carefully considered in the way of preventing legal action that may further delay YBC. To this end, I hope such information will be detected.

Sincerely,

Keith P. Calden
Chief of Department



CITY AND COUNTY OF SAN FRANCISCO
HUMAN RIGHTS COMMISSION OF SAN FRANCISCO
1095 MARKET STREET
SUITE 501
SAN FRANCISCO, CALIFORNIA 94103
TELEPHONE 558-4901

May 1, 1974

RECEIVED
1974 MAY - 2 PM 12:55
CHIEF ADMINISTRATIVE
OFFICER

Mr. Thomas Mellon
Chief Administrative Officer
289 City Hall
San Francisco, CA 94102

Dear Mr. Mellon:

*This repre-
sents a
statistical
projection only;
it is acknow-
ledged that this
figure could
be substantially
altered
through
the efforts
of HRC.*

My chief reaction to the YBC Environmental Impact Statement is that its assumption that only 26% of its jobs will be filled by San Franciscans (which concerns us greatly) is based on the premise that we will not be doing anything about this problem. The HRC is committed to the development of some system for getting more people from San Francisco's areas of unemployment into these jobs. We will be beginning this during the construction period where we already have experience. We hope we will have Redevelopment Agency support on the permanent jobs created by YBC construction.

If the purely voluntary approach does not promise enough success, we will have to move for legislation to provide some enforceable requirements.

Attached is a staff summary on the employment information in the report.

Sincerely,

William Becker
William Becker,
Director

aw
Enclosure

MEMORANDUM

From the Office of the
HUMAN RIGHTS COMMISSION

1095 Market Street - #501
San Francisco 94103
558-4901

To: Bill

Date: April 22, 1974

From: Wayne

Re: Yerba Buena Center
Environmental Impact Report

The YBC EIR, which totals over 280 pages, is a very complex document. I read the whole thing in an attempt to understand employment-related items in terms of the overall context of YBC.

Following are items of importance relative to employment:

1. By 1990 the total number of people working in San Francisco is projected at 714,000. This is an increase of 237,600 (49.87%) over the 1965 figure of 476,400.

In 1965 San Francisco residents were 61.03% of the total City workforce. It is projected that by 1990 San Francisco residents will only comprise 49.35% of the City's workforce. Looked at another way the 1965-1990 projected increase for City residents is 21.19%. The same measure for non-residents is 94.80%!

2. The projected number of persons employed in YBC by 1983 is 35,484. This is substantially more than the 24,000 figure we have been unofficially using. Furthermore, this figure does not include initial construction.

The distribution is as follows:

Office Space	32,781
Apparel Mart	1,086
Retail Space	429
Hotel	490
Exhibit Hall	281
Parking Garage	46
Sports Arena	131
Heating Plant	6
Concourse	5
Salvation Army	
Community Center	20
Community College	209

It is projected that a maximum of 26% (9,226 of 35,484) of these jobs will go to San Francisco residents!

It should be noted that the total of 35,484 does not represent that amount of new jobs. An unknown amount of these jobs will represent a shift from already existing facilities in the City, and natural increase that would have happened otherwise.

3. Between 1975 and 1982 YBC construction, including off-site fabrication, is projected to cause an increase of 4,594 jobs over what the rate would have been without YBC construction. It is projected that approximately 33% of the City-wide labor force will be made up of San Francisco residents.
4. Approximately 1,000 off-site jobs are estimated to be stimulated by YBC during the early years of the project. These jobs are primarily within the hotel restaurant and retail industries. The total is expected to increase during later years.

WCR:dej



LANDMARKS PRESERVATION ADVISORY BOARD

100 LARKIN STREET • CIVIC CENTER • SAN FRANCISCO • 94102

May 23, 1974

Mr. James F. Jaquet
Program Manager, Area C
Operations Division
W. S. Department of Housing & Urban Development
One Embarcadero Center, Suite 1600
San Francisco, CA 94111

Re: Draft Environmental Impact Statement
Yerba Buena Center
Urban Renewal Project (Calif. R-59)
San Francisco, California

Dear Mr. Jaquet:

In our letter to you of April 26, 1974, it was stated that the Landmarks Board would reply to the above matter after May 1, 1974.

At its regular meeting of May 15, 1974, after review of all elements of the Draft Statement that it might have an interest in, the Board determined that it would comment relative only to the Jessie Street Substation.

Two motions were adopted; the first is stated in its specific language:

Although this Board has not designated this building as a landmark, we question the amount of consideration given toward the possible retention and re-use of this building and feel that such attention should be given by the Redevelopment Agency before demolition of the building.

Further discussion was centered on the retention of fragments of the building if it is to be demolished; this is in reference to the third paragraph on page 72. In connection therewith, the Board approved a second motion expressing that if demolition does occur, the Board does not favor retention of any fragments, e.g., archway, doorway, segments of walls, etc., left as a memento of the structure.

Very truly yours,

Edward N. Michael

Edward N. Michael
Secretary

cc: Mr. Robert L. Rumsey - San Francisco
Redevelopment Agency
Mrs. Bland Platt - Landmarks Preservation
Advisory Board
Mr. Francis L. Whisler - Landmarks Preservation
Advisory Board
Mr. Charles Hall Page - Foundation for San Francisco
Architectural Heritage
Mr. John L. Frisbee - National Trust for Historic
Preservation



JOSEPH L. ALIOTO, Mayor

THE PARKING AUTHORITY
CITY AND COUNTY OF SAN FRANCISCO

450 McALLISTER STREET - ROOM 603
SAN FRANCISCO, CALIFORNIA 94102
(415) 558-3651

Members:

DONALD MAGNIN
Chairman

JACK DWYER
FRANCIS H. LOUIE
MICHAEL J. McFADDEN, M.D.
ACHILLE H. MUSCHI
...

ARTHUR S. BECKER
Director

April 30, 1974

Mr. Thomas J. Mellon
Chief Administrative Officer
289 City Hall
San Francisco, California 94102

Re: Draft EIS-YBC

Dear Mr. Mellon:

I have reviewed the draft environmental impact statement for the Yerba Buena Center and its conclusions with specific reference to on- and off-street parking in the designated area.

Generally, I would concur with all of the recommendations and conclusions contained therein. I would only re-emphasize the importance of a review of the proposed rate structure in order to discourage the all-day and commuter parker.

Sincerely,

Arthur S. Becker
Director

ASB:he

*refer to the
Parking
Management
Statement
prepared by
Chief
Administrative
Officer.*

CHIEF ADMINISTRATIVE
OFFICER

MAY - 1 AM 10:03

PORT OF
FERRY BUILDING



CITY OF SAN FRANCISCO • JOSEPH L. ALIOTO, MAYOR
SAN FRANCISCO
SAN FRANCISCO, CALIFORNIA 94111 • TEL.: (415) 398-8000

April 22, 1974

RECEIVED
1974 APR 24 AM 9:10
CHIEF ADMINISTRATIVE
OFFICER

Hon. Thomas J. Mellon
Chief Administrative Officer
289 City Hall
San Francisco, California 94102

Re: Draft Environmental Impact Statement
for Yerba Buena Center

Dear Mr. Mellon:

We have received a copy of the Draft Environmental Impact Statement for the Yerba Buena Center Renewal Project in San Francisco. Although this project is outside of the jurisdiction of the Port of San Francisco, we appreciate receiving this copy and having a chance to review the statement.

refer to p. 51
The Yerba Buena Center Urban Renewal Project does not appear to have any negative impact on the Port of San Francisco. The project could be helpful to the Port in that it will generate an estimated two million cubic yards of excavation material such as sand, dirt and inert construction debris. This material could provide the fill needed for the Port of San Francisco Pier 98 project for India Basin.

Yours very truly,

PORT OF SAN FRANCISCO

Miriam E. Wolff
Miriam E. Wolff
Port Director

cc: C. Vickers

CITY AND COUNTY OF SAN FRANCISCO

DEPARTMENT OF PUBLIC HEALTH

April 17, 1974

CENTRAL OFFICE
101 GROVE STREET
94102

Through: Mr. Thomas J. Mellon
Chief Administrative Officer

Mr. James P. Jaquet
Program Manager, Area C
Operations Division
U. S. Dept. of Housing & Urban Development
One Embarcadero Center, Suite 1600
San Francisco, Ca. 94111

Re: Draft Environmental Impact Statement
Yerba Buena Center Urban Renewal Project

Dear Mr. Jaquet:

This Department has reviewed the most current Environmental Impact Statement triggered by the series of proposed changes to the Urban Renewal Plan for Yerba Buena Center Redevelopment Area. The cumulative effect of the inclusion of a hotel in the Central Blocks Area in place of a 510,000 sq. ft. office building, and the land use change of three parcels in the Peripheral Blocks Area (S.W. of project) from commercial to residential use are of concern.

We concur with the following statements included within the Environmental Impact Statement, as related to Public Health, and find no overt objectionable conditions at this time.

1. Although the Yerba Buena Center Project may initially have a short term negative impact on waste water disposal facilities, no long term negative impact is anticipated.
2. Domestic solid wastes upon full development of the project would increase to 5% of the City total. The steady increase from Yerba Buena Center over the next six years, or the life of the Mt. View disposal site, is estimated to reduce the life expectancy of the site by approximately six weeks only.
3. Since water is a renewable resource and the reserve capacity of the reservoirs is not threatened, the impact of the Yerba Buena Center development upon the existing water supply is negligible.

4. Rehousing of individuals and families may be considered a negative impact as the result of disruption generally associated with displacement from familiar surroundings. Mitigating measures include the proposed plan change for new housing in the area and the construction and rehabilitation of approximately 1,500 low-cost standard units throughout the City. Major portion of relocation has already taken place.
5. Noise level will be greatest during early construction stages. City Noise Ordinance enforcement would effectively limit extraordinary noise produced by uncontrolled equipment and machinery. The expected "canyon effect" of the completed project with its higher noise levels may be mitigated through designing irregular facades decreasing noise deflection. Limiting parking may further reduce noise in the area.
6. Air quality in the area is generally acceptable. The proposed reduction of 3,200 parking spaces and a reduction of the canyon effect through redesign of three of the Central Blocks structures would likely reduce any negative air quality impact, without threatening the basic objectives of the current plan. A short term negative impact is expected during construction phases.

In conclusion, the currently proposed Yerba Buena Center Project may prove beneficial to the City through removal of blight and its associated problems. Redesign of the hotel, protective design for the proposed low-income housing units, and the reduced private parking spaces are considered environmentally superior to the project as currently planned. No significant considerations adverse to Public Health have been disclosed within this Environmental Impact Statement.

Therefore, in view of the many positive advantages of the Yerba Buena Center, we would urge this particular project be authorized.

Very truly yours,

Francis J. Curry, M.D.

FRANCIS J. CURRY, M.D.
Director of Public Health

PUBLIC UTILITIES COMMISSION
CITY AND COUNTY OF SAN FRANCISCO
JOSEPH L. ALIOTO, MAYOR

287 CITY HALL
SAN FRANCISCO, CALIFORNIA 94102
558-4986



H. WELTON FLYNN
PRESIDENT

JOSEPH P. BYRNE
VICE PRESIDENT

OLIVER M. ROUSSEAU
JOSEPH J. DIVINY
HENRY E. BERMAN

May 2, 1974

JOHN D. CROWLEY
GENERAL MANAGER OF
PUBLIC UTILITIES

JOHN C. FARRELL
SECRETARY AND
ASSISTANT
GENERAL MANAGER

JOHN M. CHRISTENSEN, JR.
ASSISTANT
GENERAL MANAGER
FINANCE

TO: Thomas J. Mellon
Chief Administrative Officer

FROM: John C. Farrell
Secretary and Assistant
General Manager

SUBJECT: Environmental Impact Statement
for Yerba Buena Center

Attached are comments from Municipal Railway as
promised in my letter to you of May 1, 1974.

JCF:ep
attchments.1

RECEIVED
1974 MAY -2 AM 9:48
CHIEF ADMINISTRATIVE
OFFICER

M E M O R A N D U M

May 1, 1974

TO: JOHN C. FARRELL
ASSISTANT GENERAL MANAGER
PUBLIC UTILITIES

FROM: JAMES J. FINN

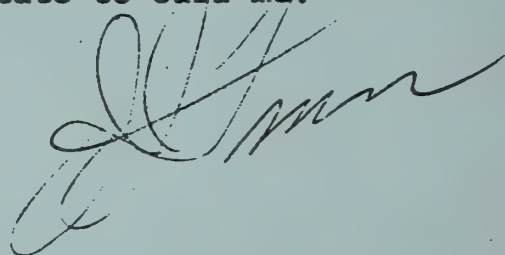
SUBJ: COMMENTS RE DRAFT ON
ENVIRONMENTAL IMPACT STUDY
FOR YERBA BUENA CENTER

Enclosed is a copy of a memorandum addressed to me from the Transit Planning staff regarding the Draft Environmental Impact report for Yerba Buena Center.

The remarks are confined to the mass transit aspects of the DEIR. The staff did not have the privilege of reviewing the entire DEIR but only that section that was forwarded regarding transit.

Page seven of the memorandum directs four questions that might be reviewed by the consultants regarding the need for mass transit to serve Yerba Buena Center.

If you have any questions regarding the enclosed comments please do not hesitate to call me.



1974 MAY -2 AM 9:48
CHIEF ADMINISTRATIVE
OFFICER

To: JAMES J. FINN

From: TRANSIT PLANNING UNIT

Date: APRIL 22, 1974

Subject: YERBA BUENA CENTER E.I.R. --
SEC. E (Traffic Noise and Air Quality)

A review of the traffic section of the subject report has been completed and it is apparent that some discussion is warranted. The discussion refers to factual information items contained in the report and the conclusions drawn from them.

1. Sec. E.1(d)--Table IV--Projected YBC Peak Period Work Trips (1985)

3 Transportation Mode -- East Bay - Transit 70%, Auto 30%

These figures for a 70/30 modal split appear based on January 1971 estimates taken from a Department of City Planning study. They are based on an assumption that capacity will be reached on the Bay Bridge, so that the excess will have to be accommodated on public transit. Several factors have changed since the preparation of that estimate, including:

1. Changes in BART capacity, based on minimum 2-minute headway, rather than the originally proposed 1-1/2 minutes.
2. Changes in plans for AC Transit's future role, including continuation of more Trans-Bay bus services than had been anticipated earlier.
3. Changes in the regions projected employment patterns, including the establishment of the Oakland City Center project and YBC itself.

In light of these factors, the 1971 estimate of a 70/30 modal split should be reassessed on the basis of more recent data. It should be noted that recent traffic counts (SF DPW, "SF Bay Area Traffic Statistics--Corridors Connecting to City of San Francisco," 2-19-74)

*refer
to
pp.
95-100*

indicate a present-day transit/auto one-way peak flow split of 31.4%/48.6%.

The possible changes in BART capacity estimates imply that the evaluations of BART capacity used throughout the EIS similarly need to be reassessed.

*refer to
p. 112*

2. Sec. E.1(d)--Table IV Projected Y.B.C Peak Period Work Trips (1985)
% Transportation Mode

To North Bay - Transit 18%
Auto 82%

The percentage split projected for transit is low. Available traffic figures for 1973 indicate that already there was a 34.1%/65.9% transit/auto split crossing the Golden Gate Bridge. These figures were obtained before the recent increase in auto bridge tolls. The projected transit split for YBC for North Bay peak period traffic should be increased by at least a factor of 2. Projected transit capacity should be increased by a similar factor.

*refer
to
pp.
95-100*

The figures quoted in the Draft EIS are based on pre-Golden Gate Transit, Marin Greyhound Services. Golden Gate Transit has however encouraged and responded dramatically increased transit usage by North Bay commuters. Furthermore, the Golden Gate Bridge Highway and Transportation District is striving toward a 50% peak period modal split for 1990, and has used such projections as the basis of its own Golden Gate Corridor study.

In summary, an 18% transit use figure is disproportionately low.

3. Projected YBC Peak Period Work Trips (1985)

B. Projected Amount

Total # of Peak Period Work Trips by Auto = 12,657

An analysis of this figure is warranted in that there will be a total of 4300 parking spaces on the site and that parking facilities in the surrounding area are filled to capacity. To accommodate the demand that cannot be met by the site's own facilities several possible consequences or alternative project additions should be considered. *refer to pp. 107-111*

These include:

a. Provide Increased Off-street Parking: This would be in violation of the Department of City Planning's Transportation element of the Comprehensive Plan. Furthermore, the E.I.R. itself states that, "If additional parking facilities are permitted in the South of Market area, a negative environmental is expected to result".

b. Accommodate Excess Auto Demand by Transit: The auto trip demand that cannot be accommodated by the site's parking facilities: 12,647 (Projected Auto Trip Demand-peak period)

$$\begin{array}{r} - 4,100 \text{ (Projected parking capacity)} \\ = 8,547 \end{array}$$
refer to pp. 111-112

This figure is conservative since all 4100 available parking spaces cannot be expected to exclusively accommodate peak period autos.

If all 8557 auto trips are assigned to transit, it
would result in a $8557 \times 100 = 58.2\%$ increase in
14702 (Projected Total Transit Trips
Peak Period)

transit patronage. Although high capacity rapid transit
lines serving San Francisco and the East Bay may accommo-
date the increased patronage, this cannot be said of
transit service to the North Bay and peninsula destinations.

More to the point is that not all these trips will be di-
verted to transit. It is reasonable to expect that commuters
will drive in and find some place away from the project area
to park their cars. Thus the third scenario, below, is the
most likely.

*refer to
p. 111*

- c. Diversion of Commuters to Areas away from YBC and Use of Local Transit to Reach the YBC Project Site: There currently exists a problem related to auto commuters parking in residential sections of San Francisco who then proceed to take local transit to the downtown area. North Bay commuters parking in the Richmond are one example. A similar situation has developed around the Glen Park BART station where commuters from both the city and peninsula park in residential sections adjacent to the station and use Bart to downtown. Such influxes of commuter autos into residential districts or already congested areas constitutes an undesirable impact and should be evaluated as such. Detrimental effects on residential districts not only include a reduction in available on-street parking for residents and visitors but also increased noise, air pollution and a hazardous situation for children crossing the streets.

4. Table V -- Projected YBC Delegate Trips--Peak Period.

The table suggests that all peninsula and East Bay YBC delegate trips will be made by auto. With BART available to the East Bay, this assumption is clearly inappropriate.

*refer to p. 102
and footnote 129*

5. Impact on MUNI

The report contains the following statement:

SF Municipal Railway - Although currently filled to capacity (475,000 passengers per weekday, with 416,100 travelling to and from the downtown area), a massive equipment replacement program is currently underway, which together with the undergrounding of the streetcar system, is expected to increase service efficiency and capacity. BART is also expected to absorb a portion of the MUNI passengers. (p. 95)

*refer to
p. 113*

Without further analysis, the report concludes that "MUNI . . . will be able to accommodate the increase in transit passengers" The MUNI Mission Street lines are still running at capacity and only two lines (the 41 Howard motor coach and 33 Ashbury) with infrequent headways serve the YBC areas south of Mission on NE-SW streets. The 15 and 30 lines run near and at capacity on 3rd and 4th Streets, and YBC might be expected to generate a significant increase in passenger volumes on these routes. A more detailed evaluation of YBC-generated passengers using MUNI services should be included in the EIS.

6. Pedestrian Traffic

The draft EIS comments on increased pedestrian movements and states that "substantial pedestrian congestion is projected". It, however, does not pinpoint where this pedestrian congestion will specifically occur. Such an analysis should be a part of the report.

*refer
to p. 100*

5. Impact on MUNI

The report contains the following statement:

SF Municipal Railway - Although currently filled to capacity (475,000 passengers per weekday, with 416,100 travelling to and from the downtown area), a massive equipment replacement program is currently underway, which together with the undergrounding of the streetcar system, is expected to increase service efficiency and capacity. BART is also expected to absorb a portion of the MUNI passengers. (p. 95)

*refer to
p. 113*

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6. Pedestrian Traffic

The draft EIS comments on increased pedestrian movements and states that "substantial pedestrian congestion is projected". It, however, does not pinpoint where this pedestrian congestion will specifically occur. Such an analysis should be a part of the report.

*refer
to p. 100*

7. Other Proposed Transit Improvements

On the whole, the Draft EIS seems based on 1965 through 1970 information, and needs to be updated in many respects. In addition to the comments above, several other projects are nearing completion which are not reflected in the statement. These include the MUNI-BARTD Coordinated Transit Planning Project, the Northwest San Francisco Rapid Transit Extension Project and the Golden Gate Corridor Study, among others. In addition, CALTRANS has studied use of the Trans Bay Terminal site extensively, and has updated Bay Bridge auto and transit projections.

Recently, the Southern Pacific Upgrading Feasibility Study has begun drafting plans for improved transit service to the peninsula. While the draft EIS is accurate in stating that "no definite plans are currently underway", it is a fairly safe assumption that transit service and capacity will somehow be increased, so that a null assumption is inappropriate.

*updating completed
to the extent possible
by available data
refer to pp. 95, 96*

AREAS FOR POSSIBLE REVIEW

1. What increased passenger volumes can be expected on MUNI lines, and what MUNI lines will be affected? Will increased capacity be required? Will additional vehicles and extended routings be justified and/or necessary?
2. What are the currently anticipated patronage levels for BART in 1985? Has any allowance for YBC traffic been incorporated into these projections?
3. What are the current projections as to how much AC Transit patronage will be shifted to BART after tube opens?
4. Does expected patronage between Downtown and Marin, East Bay, Peninsula, and City for 1985 include YBC?

*refer to
p. 113*

*refer to
p. 112*

*refer to
p. 111*

*refer to
pp. 111-112*



CITY AND COUNTY OF SAN FRANCISCO
DEPARTMENT OF PUBLIC WORKS

OFFICE OF THE
DIRECTOR OF PUBLIC WORKS

April 30, 1974

RECEIVED
1974 MAY - 1 AM 9:10
CHIEF ADMINISTRATIVE OFFICER
260 CITY HALL
SAN FRANCISCO
CALIFORNIA 94102

Subject: Yerba Buena Center
Environmental Impact
Statement dated 2/19/74.

Mr. Thomas J. Mellon
Chief Administrative Officer
Room 289, City Hall
San Francisco, California 94102

Dear Mr. Mellon:

The E.I.S. draft as prepared by the Department of Housing and Development, Region IX, dated February 1974, for the Yerba Buena Redevelopment project is in our opinion comprehensively presented and written and is adequate in all pertinent areas, (i.e. impacts positive and negative, unavoidable impacts, alternatives, short term versus long term impacts and irreversible effects.)

The following are our opinions which we believe should be considered in preparing the final E.I.S.

1) Pages 33-34 and 195 Wildlife and Vegetation

*refer to
pg. 34, 35*

We question the use of the terminology "negative impact" as it pertains to the removal of the two neighborhood gardens. The E.I.S. states "approximately 1½ acres surrounded by Third, Folsom, Ritch and Harrison Streets. . . this garden is an unauthorized use and is slated for eventual removal" and "a second neighborhood garden . . . planted south of Clementina Towers. . . use has been authorized by the Agency as an interim use until such time as the parcel is developed in accordance with the plan."

As indicated in the E.I.S., both gardens are in essence illegal and to designate the removal of these illegal areas as a "negative impact" in my opinion is inappropriate and misleading.

2) Pages 42 through 47 and 196

Brief but adequate description of YBC effects on San Francisco waste water transport and treatment facilities.

Mr. Thomas J. Mellon
Chief Administrative Officer
Re: Yerba Buena Center
April 30, 1974

Page 2

3) Pages 59-60 and 61 Relationships of Plan Changes To The Project

refer to p. 65
In our opinion the desire of the community members to reside in project area should be stressed more positively, quoting low-income housing ratios and the negative impacts therefrom seems inappropriate when weighing the beneficial trade-offs in this regard.

4) Pages 62 through 68 Urban Design

Attributes can only be described in terms of their impact upon the observer; thus, these references are retained.
This essentially adequate description of the project in some instances reflect the author's hypothetical references to persons entering or exiting the project area and the emotional and physical experiences therefrom. This in our view effects readers opinions and could be misconstrued as bias reporting negating the E.I.S.

5) Pages 106 through 112 and 202 Noise

We agree with the conclusion that noise conditions in the Project area, which are generated mainly by motor vehicle traffic, are too high for both present and projected land uses. We agree that none of the alternatives discussed would reduce the noise levels, and that full development could cause an increase of as much as 3dBA in average noise levels if there were an approximate doubling of daily traffic volume in the area.

refer to p 123
We note, however, no discussion of the fact that 3dBA increase in average noise level is almost indistinguishable by most human ears. Even for a single noise event, 3dBA is barely perceptible; 5dBA increase is necessary to assure perception of a noise change. We believe that the projected possible average 3dBA increase will have negligible effect, and that use of the word "exacerbate" on Page 202, Line 4, is particularly unfortunate.

These should be considered to be further mitigating factors to the existing noise level.
We note also, no references to the requirements in California Vehicle Code and pending requirements by U.S. Environmental Protection Agency for progressive reductions of noise emitted from new motor vehicles which will cause a reduction in average traffic noise levels on the order of 10dBA by 1987.

"canyon effect" reference deleted in text
We believe that possible adverse effects of noise reinforcement by reflection from new buildings is overemphasized. Less than full occupancy of property frontage together with planned and recommended breaks in the building facades would reflect much less noise than is normal in older "canyon" streets where low rise buildings form continuous walls on the property lines. Compared to other variables in the total noise environment, this would be quite small.

refer to pgs. 131-133
We agree completely with the assessment of short-term impact of construction noise, and believe that all possible steps should be

Mr. Thomas J. Mellon
Chief Administrative Officer
Re: Yerba Buena Center
April 30, 1974

Page 3

taken to minimize the impact of diesel-powered trucks and excavation equipment during the early phases of the work. Encouragement should also be given to the use of electric power for hoists, air compressor, and welding generators, particularly during steel erection phases.

6) Page 199 C. Land Use and Aesthetics, 2. Urban Design

*refer to
p. 74*

As indicated in the statement, the Urban Design Consultant to the project is presently studying possible alternatives with the private developers to insure the buildings will conform with the design concepts on which the redevelopment plan is based.

7) Page 202, 2. Noise, Paragraph 4

*refer to
p. 205*

In my opinion the word "costly" appears to be misused and the statement should read, "The proposed low-income housing will be adversely effected by the existing and projected noise levels in the area, unless proper sound reducing design techniques and materials are used to attenuate the interior noise". The regulating agencies should insure the required techniques be incorporated into the project housing design.

8) Pages 33 through 105, Pages 190 through 194 and 201 Traffic

*These figures
were consulted
in conjunction
with other
available
reports and
statistics*

Attached is a report (copy) we prepared with regard to the original Environmental Impact. Report Draft prepared by Mr. Arthur D. Little Inc.

Our report developed trip generation figures for the project. These figures are lower than those in the new report which are lower than those in the A.D.L. Inc. report.

Further, these appear to be some errors in the new report to wit:
Page 91, paragraph 1: different in 1965 DPATS Study
Page 92, foot note 122 re: 2000 person trips
Page 94, line 5: incorrect capacity of major one-way streets too low
Page 97, generation higher than we found (see attached report)

*Corrections
made in
text.*

Very truly yours,

S. M. Tatarian
Director of Public Works

YERBA BUENA CENTER
CRITIQUE OF ENVIRONMENTAL IMPACT REPORT

In reviewing the Environmental Impact Report for the Yerba Buena Center, we found differences in regard to the number of trips generated by the office buildings and the Apparel Mart. These differences were significant in that they were much lower than those submitted in the report. Also, differences were found in the trips generated by a convention in the exhibit hall. Again, our experience has shown a lower number of trips.

The attached pages titled Method 1, 2 and 3, use three different approaches for determining trip generations for the Yerba Buena Center. Following is a listing of sources used in our trip generation analysis of Yerba Buena Center:

1. Downtown Parking and Traffic Survey, 1966, pages 20, 27 & 28.
2. National Cooperative Highway Research Program Report #62, pages 7, 111, 121, 128.
- 3. Civic Center Garage Survey - Base Data, 1959.

From the Downtown Parking and Traffic Survey, trip origin and destination and length of trip were found during the survey. Also modal split and trip generation rates were found. Trip generation rates for the Furniture Mart, International Building, Crown-Zellerbach Building, Bethlehem Steel Building, Macy's, the Hilton Hotel, and the St. Francis Hotel were utilized in dealing with the separate elements of the Yerba Buena Center Project with regard to their trip generation rates.

The NCHRB Report #62 was used to determine peak hour trip generation rates for building arrival and departure rates, total person trips to private office buildings with multiple tenants, absentee rates (16 per cent - not recognized by ADL report) and highest peak hour factors (17 per cent).

The Civic Center Garage survey was used to determine peak hour trip generation factors for various types of conventions that occurred in the Civic Center area. The Motorama was found to be the largest public show, and the gift show, and the American Medical Association convention are among the largest private events to take place in the Civic Center Area.

A study was made of the traffic patterns at the downtown airline terminal (Taylor and O'Farrell Streets) during a 4 to 6 PM period on a weekday to determine trip generation rates for this type of facility.

By using the three different methods to determine trip generation by office buildings, the numbers varied as follows:

Method #1 - 2,071 to 2,525 (using average and highest generation rates)

Method #2 - 2,375

Method #3 - 2,420

The total trip generated by office buildings using any of the three methods compare favorably. Using the highest total generation factor for office buildings, as well as the highest generation factors for all other uses in the Yerba Buena Center, it was found that 3,819 trips would be generated by YBC during the P.M. peak hour. It is reasonable to assume because of the peak nature of the peak hour that for the 30 minutes preceding and following the peak hour another 2,900 trips would be generated, the total generation for the project would be in the neighborhood of 6,735 vehicles in the P.M. peak two-hour period. This is considerably less than that shown by the Environmental Impact Report.

The portion of the report that deals with air pollution deserves comment due to the fact that the pollution levels shown in Table I-23, Automobile Pollution, was arrived at using the average trip length of 10 miles per day per vehicle.

Using the 1966 Downtown Parking and Traffic Study, it was found that the average trip length region-wide to downtown San Francisco was 9.3 miles per day. This compares favorably with the figure used by the consultant; however, it should be pointed out that the trips of that distance included travel beyond San Francisco. The average trip length in San Francisco was only 3.32 miles in length. Therefore, the yearly air pollutant production for San Francisco should be based on the 3.32 factor rather than the 10 mile factor. This reduction by 3 would be significant in reviewing air pollution impact.

RJE:ea
8/27/73

TRAFFIC GENERATION

METHOD 1

Y.B.C. - NO BART IMPACT

Facility	Sq. Ft.	Gen. Rate Trips/100 Sq. Ft.	10-6 Trips	Pk. Hr.
Central Blocks				
Exhibition Hall	652,000	1,852 Motorama		100 In. 175 Out
Arena	19,000 seats	Trips begin Later		---
Theater	2,400 seats	" " "		---
Hotel	700 rooms	1.2/Room	840(.20)	168
Airline Terminal	132,000			278
Apparel Mart	1,086,000	1.92 Mart Week	2040(.17)	347
Retail Shops & Trade	343,000	2.54 Macy's	872(.17)	148
Outside Center				
Retail	121,000	2.54	308(.17)	53
Industrial	46,000	1.0	46(.3)	15
Residential	276 units	.5	138(.06)	10
Offices - Center	2,275,000			
Out Center	5,200,000			
Rehab.	262,000			
	7,737,000	1.92 DPATS	14855(.17)	2,525
		1.41 DPATS AVG.	(2071)	3,819
6,735 Trips in 2 Hrs. Using 59.7% PHF for Kearny St.			(3365)	

545
1245
281
2071

METHOD 2
FOR OFFICE BLDG.

$$\text{TPT}_{\text{POB}} = 599 + 5.248 (\text{GFA}) = 599 + 5.248 \begin{pmatrix} 5462 \\ 2275 \end{pmatrix} = \underline{7737}$$

$$599 + 40600 = 40659$$

Modal Split 45.3% Auto P.T.

$$40659 \times .453 = 18400 \quad \underline{\text{DPATS}}$$

$$18400 \div 1.32 = 14000 \text{ V T}$$

$$14000 \times .17 = 2375 \text{ V T in } \underline{\underline{\text{Pk. Hr.}}}$$

$$2375 \approx 2071 \quad (2525 \text{ w/1.92 factor})$$

WORK & NON-WORK COMBINED

NO BART IMPACT!

METHOD 3 FOR OFFICE BLDG.

5 T/K \square GFA

TPWT

NCHRP

PG. 118 & 121

REPT 62

(✓) Compares w/ Table D-1
on V-D-1

$$7737 \times 5 = \underline{\underline{36685}} \quad \text{TPWT}$$

1.44 T/K \square GFA

TPNWT

$$7737 \times 1.44 = \underline{\underline{11150}} \quad \text{TPNWT} \quad (\checkmark)$$

DPATS

MODAL SPLIT

WT 27.7% Auto.

72.3% Transit.

NWT 74% Auto

26% Transit.

$$\begin{array}{rcl} \text{PWT} & & \text{PNWT} \\ 36685 (.277) & + & 11150 (.74) \\ 10150 & + & 8360 & = & 18510 \quad \text{TPT} \\ 18510 \div 1.32 & = & \underline{\underline{14000}} \quad \text{VT} \end{array}$$

$$(10150 \div 1.13) + (8360 \div 1.6)$$

$$\begin{array}{rcl} 9000 & + & 5220 & = & 14220 \quad \text{TVT} \\ 14220 \times .17 & = & \underline{\underline{2420}} \quad \text{TVT in PK. HR.} \end{array}$$

PG. 128 NCHRP

$$2420 \approx 2071 \quad (2525 \text{ w/1.92 factor})$$

Work Vs. Non-Work for Both

Modal Split & Veh. Occy.

NO BART IMPACT!

(VT = Vehicle Trips)

CITY AND COUNTY OF SAN FRANCISCO
REAL ESTATE DEPARTMENT

OFFICE OF THE
DIRECTOR OF PROPERTY
558-3591

April 26, 1974

450 MARKET STREET
SAN FRANCISCO, CALIFORNIA 94102
RECEIVED
1974 APR 26 AM 10:00
CHIEF ADMINISTRATIVE OFFICER
YERBA BUENA CENTER

Draft of Environmental Impact Report
for YERBA BUENA CENTER -
Real Estate Department Review

Mr. Thomas J. Mellon
Chief Administrative Officer
City and County of San Francisco
289 City Hall, San Francisco, California

Dear Mr. Mellon:

This is in response to your letter of March 26, 1974 in which you requested this department to submit any comments for consideration in the final Environmental Impact Statement to be prepared by HUD.

We have reviewed the Draft Statement and recommend the following minor changes and additions:

Page 23, 5th paragraph, Line 7:

Art Objectives should be "Art Objects".

Page 31 - Details of this page are missing in our copy of the report.

Page 139, 1st paragraph, Line 3 under Growth Trend of Convention Business:

Brooks Hall should read "Civic Auditorium and Brooks Hall structures in Civic Center which have served national conventions in the past".

(Note: The 167,000 sq. ft. of exhibit space is the total area for the combined Brooks Hall and Civic Auditorium).

Page 157, 3rd paragraph, under 3 - Economic Impact on the City:

Revenue going to YBC which would normally have gone to Brooks Hall should read "Revenue going to YBC which would normally have gone to Civic Auditorium and Brooks Hall".

Sincerely,

Wallace Wortman

WALLACE WORTMAN
Director of Property

WW:mw

*All
corrections
made
in
text*



JOSEPH L. ALIOTO, Mayor

Walter F. Kaplan, Chairman
Francis J. Solvin, Vice Chairman
Stanley E. Jensen
Joe Mosley
James A. Silva

SAN FRANCISCO REDEVELOPMENT AGENCY

839 ELLIS STREET • SAN FRANCISCO 94109

(415) 771-8800

PREFERRED MAILING ADDRESS: POST OFFICE BOX 846 • SAN FRANCISCO, CALIFORNIA 94101

April 24, 1974

In Reply Refer To: 112:16374:148

Mr. Thomas J. Mellon
Chief Administrative Officer
City and County of San Francisco
289 City Hall
San Francisco, CA

Dear Mr. Mellon:

In response to your letters of March 26 and April 11, 1974, I submit the following comments on the Yerba Buena Center Environmental Impact Statement which was prepared by the Department of Housing and Urban Development.

While I do not agree with all the assumptions made in the Statement, and in particular with those contained in the Economics and Financing section, on the whole I find the report to be logical, straight forward, and understandable. I congratulate its authors on this accomplishment, given the recognized difficulty of bringing together various technical studies in a document intended for the general public.

My main criticism of the report concerns a statement made on page 171 of the Economics and Financing section. This statement, which relates to the generation of off-site personal income, is as follows:

"This income is not incorporated into the summary of economic cost and benefits to the City, because it is extremely difficult to trace and account for it accurately. However, it can have an important impact upon the local economy."

While I agree that this figure is difficult to determine, the net personal income generated by Yerba Buena Center is a key reason for construction of the project. Yerba Buena Center will provide San Francisco with a "new plant" for its number one industry, the convention and visitor business, while upgrading the South of Market.

RECEIVED
1974 APR 25 AM 11:12
CHIEF ADMINISTRATIVE OFFICER

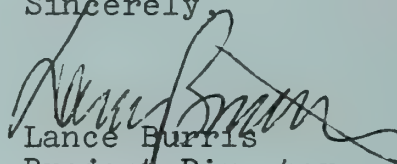
April 24, 1974

The Arthur D. Little Company in its State Environmental Impact Report, using different assumptions, projected that \$105 million in new money would be channeled into the salaries of Bay Area residents each year as a result of building Yerba Buena Center. If the City recaptures enough of this money through taxation to break even on its investment, the project is well worth doing. The EIS shows a net surplus.

On Page 127 of the report, a statement is made that income projections for the public facilities should be considered very conservative. The report states that these projections should be considered "the minimum amount of revenue to be expected from the YBC project." It should be noted that we are building the public facilities to generate new business as well as to retain existing convention business. In order to generate the desired new business we will need the best facilities possible and an aggressive management. Excellent facilities have been designed, and we intend to create a management organization which will make good use of those facilities. Therefore, the economic performance of the public facilities should be considerably better than that projected in the EIS.

In conclusion, I attach a copy of the comments on the Yerba Buena Center EIS sent to me by the William J. Moran Company, construction consultants to the City. Additional comments prepared by the San Francisco Redevelopment Agency will be sent under separate cover.

Sincerely,



Lance Burris
Project Director
Yerba Buena Center
Public Facilities

Attachment



APR 9 '74 AM

William J. Moran Company

693 MISSION ST. • SAN FRANCISCO, CALIFORNIA 94105 • TELEPHONE (415) 781-5980

Home Office:
1011 SO. FREMONT AVE.
ALHAMBRA, CALIFORNIA
(213) 283-6141

April 8, 1974 REDEVELOPMENT AGENCY

100-744-008

San Francisco Redevelopment Agency
P.O. Box 646
San Francisco, California 94101

Attention: Lance Burris, Project Director

Subject: Yerba Buena Center -- Your Ref. 112:13374:008
Federal (HUD) E.I.S.

Dear Lance:

Pursuant to your letter of April 4, 1974, we have perused the draft Yerba Buena Center Federal Environmental Impact Statement.

While we found no major points requiring our comment, we did notice the following minor points:

all corrections made to text
P.65 As written, opening quotation marks are required at the beginning of line 7. However, as the quotations appears in footnote 102, this sentence would be better omitted in the text.

P. 78 In item B8, misprint Fifty, for Fifth

P.95 End of 3rd line, 2nd paragraph, misprint West for East

P.107 Under c.1, each of the three negative statements for Interior, under the negative heading, creates a double negative. Each should read "Exceeds..." (as for Exterior), and the connective "and" should be omitted.

P.110 Next-to-last line -- Misprint "forcades" for "facades"

P.143 Lines 2,3 -- "May through October" should read "October through May".

P.146 Heading of Column (7) should read "Net Income [(6)-(5)]" or "Net Revenue..."

San Francisco
Redevelopment Agency

- 2 -

April 8, 1974

P.156 First footnote -- "effected" should be "affected".

P.159 Last line -- Delete the dollar sign.

P.160 Line 4, next-to-last paragraph -- Misprint "vacacny" should be "occupancy".

P.164 There is no double asterisk to indicate the application of the second footnote. This presumably refers to sales tax (as on page 166), but this is not tabulated.

P.173-175 Paragraph 4 on page 173 describes the presentations of tables XXVI and XXVII, on pages 174 and 175. It would appear that these tables are reversed. Also, in Table XXVI (which should be XXVII) there should be a reference from the column of Amortization Fund Balance to Table XV on page 156.

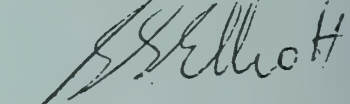
P.A-13 Line 9-- Misprint for "annexed"

Title Sheet for Appendix I (preceding P.A-33)-- Misprint for "Domestic"

P.A-73 & following Several representatives listed no longer occupy the positions shown. We note: Honorable Ronald Pelosi, John Dykstra, John M. Woods.

Very truly yours,

WILLIAM J. MORAN CO.


George S. Elliott
Chief Estimator

GSE/ps

ROBERT L. RUMSEY, Executive Director



JOSEPH L. ALIOTO, Mayor

Walter F. Kaplan, Chairman

Francis J. Solvin, Vice Chairman

Stanley E. Jensen

Joe Mosley

James A. Silva

(415) 771-8800

RECEIVED

1974 APR 26 PM 5:09

SAN FRANCISCO REDEVELOPMENT AGENCY

CHIEF ADMINISTRATIVE OFFICER
YERBA BUENA CENTER SITE OFFICE
820 HOWARD STREET • SAN FRANCISCO, CALIFORNIA 94103

April 26, 1974

In Reply Refer to:

Mr. Thomas J. Mellon
Chief Administrative Officer
289 City Hall
San Francisco, CA. 94102

Dear Mr. Mellon:

This letter is in response to your letter of March 26, 1974, to City administrators receiving copies of the Draft Environmental Impact Statement for Yerba Buena Center.

My comments for inclusion in the comprehensive response by the City are transmitted herein. Specific items on which comment is made are included in two attachments: (1) Attachment 1 is a listing of minor technical points, statistical footnotes and some of the typographical errors which would be corrected in the final version; and (2) Attachment 2 is a listing of informational items relating to more recent data on parking, certain interrelated provisions of the Redevelopment Plan and City Planning Code and other such matters.

I believe that the entire draft Environmental Impact Statement is professionally done and creditably presented. My only difference of opinion with its conclusions would be that the overall positive impact of Yerba Buena Center may be somewhat underestimated. However, such underestimation may be a recognition of some of the uncertainties of what the future holds rather than inherent caution concerning the project itself.

Please feel free to call me at 771-8800 (extension 300) if you should have any questions concerning these comments.

Sincerely,

David L. Collins
Area Director

Attachments (2)

cc: Robert L. Rumsey

ATTACHMENT 1 - COMMENTS ON DRAFT ENVIRONMENTAL IMPACT STATEMENT FOR YBC

1. Page 7: To avoid possible ambiguity, the 168.5-acre figure for demolition completed should be stated as 7.3 million square feet.
2. Page 14: Since the April 1966 approval of the Redevelopment Plan was an "original" approval, the word "amended" in reference to it should be deleted.
3. Page 14: On the fourth line from the bottom of the page, excluding the footnote, the word "private" should be deleted, since the Redevelopment Plan contained no specific designations for either public or private development.
4. Page 68: The unclear references resulting from the phrase which indicates that San Francisco "has previously been notably lacking" suggest that such phrase would appropriately be deleted.
5. Page 69: The Redevelopment Plan should be correctly described as the Yerba Buena Center Redevelopment Plan, and "Center" is not properly omitted in such references.
6. Page 70: The generalized description of the relationship between preliminary plan approval and return of the good faith deposit should be restated, along the lines of the following: "Agency disposition agreements contain a design review process which is multi-phased and insures that design will proceed in relationship to a larger context. Failure to obtain approval of preliminary plans will result in breach of the contract, in which case the good faith deposit may, at the option of the Agency, be refunded to the redeveloper."
7. Page 73: Under cultural places, the reference to "the sole motion picture theater" demolished in Agency Contract No. 22 should be restated, since another motion picture theater (on Third Street between Mission and Howard Streets) was also demolished (Agency Contract No. 21).
8. Pages 85 and 87: To accurately present the data relating to estimates of business relocation, the figures shown should be consolidated into one statistical table presenting such estimates, which probably represent reasonable prospects or parameters for future activities in such area.
9. Pages 92 and 96: Some acknowledgement should be made, although recomputation would not be appropriate, that some change has already occurred in the modal split with respect to the San Francisco-San Mateo Bay Area Rapid Transit line. Such changes in commuting patterns have affected parking rates and usage in the South of Market area and clearly establish the direction of future change in such modal split.

*Corrections 1-7 and 9 made in text
Re #8: Two tables retained to provide a balance of
possible projections*

ATTACHMENT 2: COMMENTS ON DRAFT ENVIRONMENTAL IMPACT STATEMENT FOR YBC

1. Page 16: The description of the 1971 amendments to the Redevelopment Plan should be described as the deletion of major alternate land use provisions of Land Use Plan B and the amendment of Land Use Plan A to include minor street revisions and elimination of parking facilities as a permitted use in certain locations. The amendments described for Blocks 3724, 3733 and 3735 are covered in the amendment of the land use districts and development standards. The typographic error should read that the hotel is a permitted use in Land Use District C.
2. Page 49: The reference to disposition of excavated materials in the India Basin project should be deleted, as recent events have made such plans obsolete.
3. Page 56: The reference to the demolition of 1,962 "residential units" should be clarified. All such units were hotel rooms without bath, or what HUD would describe as substandard housekeeping units, and about 500 of such units were non-habitable hotel rooms which were vacant for several years prior to Agency acquisition.
4. Pages 59-60: The discussion of relationships between the plan changes and the project in the context of the City's Improvement Plan for Residence may need clarification. It is necessary to recognize that City policies of defining zoning districts without eliminating neighborhood housing opportunities represent a valid general statement of objectives, rather than specific objectives which may be inconsistent with each other.
5. Page 61: The summary statement that the impact of the redevelopment project is negative in the context of a net reduction of low-income dwelling units in the City is not supported by statistical data and probably cannot be. If occupancy and non-occupancy criteria, the impermanency of room rates for individual properties held in private ownership, the aggregative effect of Clementina Towers (276 permanent low-income units) and the 1,500-plus low-income units developed under Court Order of November 9, 1970, and the additional units to be developed by TODCO are all considered, the net impact on permanent low-income dwelling units would have to be positive rather than negative. This is admittedly a difficult area in which considerable disagreement on the criteria exists.
6. Pages 66 and 72: The impact of future change on St. Patrick's parish may be somewhat overstated.
7. Page 75: Some additional reference, probably by footnoting, should be made to the somewhat lower sampling which was experienced in workload surveys taken during and after the litigation on relocation matters, since a measure of hostility or non-responsiveness to such survey interviewing was generated by the restraints of the litigation.
8. Pages 82 and 83: The following revisions should be made: (1) District Council Number Five of the Economic Opportunity Council should be mentioned as a representative residents' group; (2) The New Start Center services were discontinued at 40 Holland Court, and some of such services are now being performed at 1175 Howard Street; (3) The Salvation Army (non-medical detoxification and religious services)

All
corrections
noted
in
text

is moving and will vacate its current premises in June 1974; (4) The Fil-Am Neighborhood Association and Filipino Education Center are in the process of moving and will be vacated in May 1974; and (5) The typographic errors in this list should be corrected to read "Canon Kip", "San Francisco Neighborhood Legal Assistance Foundation" and "Embarcadero YMCA".

9. Page 90: the data presented on parking spaces reflects conditions in March 1972 and should be updated to reflect changes since that time, which are herein described. The present inventory of parking spaces in Yerba Buena Center is 4,930 spaces, of which 730 spaces are permanent spaces (578 spaces in the parking structures at 55 Hawthorne Street and the Fifth and Mission Garage extension and 152 spaces retained by private owners under Owner Participation Agreements with the Agency).

refer to pg. 107-110

A substitute description of the parking inventory might read as follows: "...Following clearance and certain development activities within the project area, the total number of parking spaces in the project area was increased to approximately 4,930 spaces, of which 730 spaces can be considered to be permanent. The Central Blocks development proposes the replacemnt of 2,472 existing surface parking spaces with 2,400 permanent spaces, thus effectuating a nominal but actual net reduction in off-street parking within its limits. The existing 730 permanent spaces and the 2,400 spaces programmed for the Central Blocks would result in an inventory of 3,130 permanent spaces. Development of sites which are peripheral to the Central Blocks could result in an additional inventory of up to 725 off-street parking spaces. Since the City Planning Code provides that public off-street parking facilities constructed within such area may obviate or reduce requirements for off-street parking in connection with individual development projects if the total off-street parking supply for all buildings and uses in the area is sufficient, it is likely that a corresponding reduction in total parking requirements would be warranted. A reasonable estimate for the total inventory of parking to be developed in the project area is 3,700 spaces, or a net reduction of 1,230 spaces from the current inventory.

10. Page 94: Some reference should be made to changes which have occurred since the November 1966 DPATS report. The 1968 C-3 zoning revisions established City policy to limit parking in the Central Business District, and the reference to a deficiency of parking spaces north of Market Street should be reconsidered in view of such City policy within the C-3 zoning districts. Also, parking lots in the South of Market area are not being filled to capacity in spite of rate reductions, which conditions probably result from the shift of some former commuters to riding BART between San Francisco and Daly City.

Correction made

11. Page 101: The first paragraph of text on this page should be deleted entirely, as it relates to data which is obsolete or incorrectly stated.
12. Page 101: As with previous comments relating to changes in the parking inventory within the project area, the data presented needs updating

ATTACHMENT 2 (Continued)

along the following lines:

- refer to pp. 107-110*
- 316 spaces - existing public garage (5th & Mission)
 - 30 spaces - existing public lot (Clementina Towers)
 - 384 spaces - existing private development
 - 1800 spaces - public garage programmed for Central Blocks
 - 600 spaces - private apparel mart garage programmed for Central Blocks
 - 181 spaces - on-street parking spaces to remain
 - 389 spaces - probable additions from programmed private development

3700 spaces - probable total inventory for project area*

(*if programmed public off-street parking does not materialize and corresponding reductions in required parking inventory are not effectuated, an estimated 336 additional parking spaces would be required to support programmed development of the peripheral parcels, thus increasing the total inventory of parking spaces for the project area to 4,036 spaces)

- The 25% figure is retained as reflecting the "worst case" condition*
13. Page 103: Although a generalized figure of 25% of elderly residents of low-rent housing owning automobiles may apply in other areas of the City, the City Planning Commission required only 30 spaces (or one space for every nine units, approximately 11%) in connection with the development of Clementina Towers, and a ten per cent or lower figure would be more appropriate in estimating impacts of the proposed plan changes.

- refer to pp. 107-110*
14. Page 191: As noted above, data on parking inventory should be updated to reflect current conditions. It should also be noted that the original Redevelopment Plan and subsequent amendments contained no specific provisions for numbers of off-street parking spaces to be developed. The only official reference to programmed parking is the Central Blocks Offering in June 1969, which cites 4,000 programmed parking spaces in the two Central Blocks garages and an estimated 1,200 spaces for peripheral sites and their development. Since the number of parking spaces to be developed can only be estimated, the discussion representing the "parking configuration of the present plan" should be deleted in its entirety.

Additionally, the statement that indicates that spaces for private office buildings have remained constant in accordance with City zoning requirements should be restated. The requirements of Section 146(f) of the City Planning Code (Ordinance No. 284-68, approved October 3, 1968), when related to the 1,800 public off-street parking spaces programmed for the Central Blocks, which program exceeds the previously-estimated 1,200 off-street spaces estimated for the peripheral parcels, indicate that corresponding reductions in off-street parking requirements will be justified when the Central Blocks development proceeds.

- refer to pp. 107-110*
15. Page 193: The discussion relating to "Parking in Private Developments" should be restated to reflect the potential reduction in requirements which could develop from the authorization for construction of the public off-street parking programmed for the Central Blocks. The conclusions drawn in this section add to the justification for such reduction.

ATTACHMENT 2 (Continued)

16. Page 203: Under air quality discussion, it should be pointed out that the reduction in off-street parking spaces is as follows:
- (1) 1,600 spaces within the Central Blocks (4,000 proposed in June 1969 versus 2,400 now programmed for construction) and
 - (2) 1,500 spaces for the entire Yerba Buena Center Redevelopment Project (5,200 proposed in June 1969 versus an anticipated total of 3,700 spaces).

17. Appendix E: Since several of the suits included in the summary of litigation have been concluded or dismissed, the summary should be revised to include only those suits which are outstanding at this time and should also be updated to reflect changes in status which have recently occurred in one or more of the suits.
- The status has been updated, discussion of all litigation has been retained to fully reflect public reaction to the project.*

E. PRIVATE AGENCIES and INDIVIDUALS

ARCON / PACIFIC LTD.

300 MONTGOMERY STREET
SAN FRANCISCO CA 94104
415-391-5757 12TH FLOOR

June 7, 1974

Mr. James P. Jaquet
Program Manager, Area C
Operations Division
U.S. Department of Housing & Urban Development
One Embarcadero Center, Suite 1600
San Francisco, California 94111

RE: Yerba Buena Center
9.1 PM-C

Dear Sir:

Please be advised that the "Yerba Buena Center/Environmental Impact Statement" should be corrected and/or amended as follows:

- Corrections
made in text*
1. Page 24 - The "six story" is misleading. The mart will have three stories of commercial under its six stories, therefore making the building approximately 9 average stories.
 2. Page 66 - The Market Street Office Building is presently programmed for 36 stories not "30 stories."
 3. Page 68 - It is our intention and design program to introduce plant material and human scaled elements on the roof top of the private developer's buildings. Namely, the low roof tops of the Mart and the lower public space of the Hotel.
- refer to p. 71*

Generally speaking, we found the Statement easy to understand and found that it gave an objective and concise reporting of the conditions as they exist.

Please further be advised that the private facilities as they were presented to you were "master-planned in" only relative to a

Mr. James Jaquet
Page 2

refer
to p. 66 gross square foot program of our economic projections and floor area ratio, allowed by the City of San Francisco and the Redevelopment Agency.

refer
to p. 74 It is our intention to finalize the design of each building with input from the design review consultants of the City and Redevelopment Agency. All comments in the Statement will be seriously considered by our architects and ourselves.

Very truly yours,



Lyman Jee,
Executive Director

k
a
h

cc: SFRA, Lance Burris

3/25/74

Ms. Mary Clute
Director of Environmental Impact Study
for Yerba Buena Center
Department of Housing and Urban Development,
San Francisco Area Office
One Embarcadero Center, Suite 1600
San Francisco CA 94111

Ms. Clute:

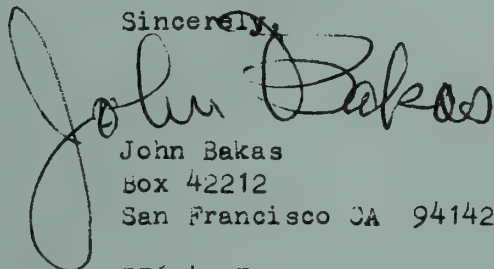
In response to the recent request for comments about
the environmental impact of Yerba Buena Center I
submit that:

*refer to
pp. 109, 110
and the Parking
Management Statement
prepared by the
Chief Administrative
Officer*

A highly positive environmental impact will result
from an efficient horizontal elevator or other type
of people moving system built into the complex
starting at Market Street.

Such a concept, if well thought out, could do far
more to encourage the use of mass transit in San Francisco
and promote the South of Market Area than would the
limiting of parking--as reported in the 3/22/74
edition of the SF Chronicle.

Sincerely,



John Bakas
Box 42212
San Francisco CA 94142

776-4117
221-9700

WILLIAM M. BRINTON
ATTORNEY AT LAW
ALCOA BUILDING
ONE MARITIME PLAZA
SAN FRANCISCO, CALIFORNIA 94111

April 10, 1974

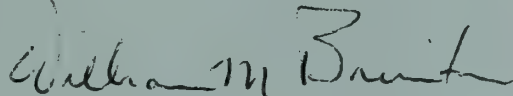
Mr. James P. Jaquet
Program Manager, Area C
Operations Division
U.S. Department of Housing
& Urban Development
One Embarcadero Center, Suite 1600
San Francisco, California 94111

Your Reference: 9.1PM-C

Dear Sir:

Attached hereto and incorporated by reference are my comments on the draft Environmental Impact Statement regarding the Yerba Buena Center, Urban Renewal Project (Calif. R-59).

Very truly yours,

A handwritten signature in dark ink, appearing to read "William M. Brinton". The signature is fluid and cursive, with the first name "William" and last name "Brinton" clearly distinguishable.

William M. Brinton

WMB:rrj
Enclosure

cc: Council on Environmental Quality

WILLIAM M. BRINTON
ATTORNEY AT LAW
ALCOA BUILDING
ONE MARITIME PLAZA
SAN FRANCISCO, CALIFORNIA 94111

COMMENTS ON
THE DRAFT ENVIRONMENTAL IMPACT STATEMENT
ON YERBA BUENA CENTER
[URBAN RENEWAL PROJECT (CALIFORNIA R-59) 9.1PM-C]

refer to p. iv.
HUD's guidelines were developed in accordance with the approval of C.E.Q.
In San Francisco Tomorrow v. Romney (C.A. 9) 472 F.2d 1021 (1973), 4 ERC 2028, the Court of Appeals held expressly that amendatory grants of June 26, 1970, and April 28, 1972, to the San Francisco Redevelopment Agency did not constitute "further major federal action" so as to require an EIS under NEPA for the Yerba Buena Center Project. Notwithstanding this holding by the Court of Appeals, HUD has undertaken to prepare an EIS purportedly in compliance with guidelines appearing in 38 FR, No. 137, Part III, July 18, 1973, Chapter 2, 5.a.(4). There is no reference in the EIS to guidelines of the Council on Environmental Quality (CEQ) issued on August 1, 1973, and applicable to any draft and final EIS filed after January 24, 1974. The EIS on Yerba Buena Center (YBC) is dated March 21, 1974.

and steps have been taken as result of reports being made for the PP. 227, 228
In my view, the EIS falls far short of a good faith attempt to meet statutory and regulatory requirements. Courts have consistently held that government agencies must comply not only with all procedural requirements but also that the substantive effect of the agency's decision is consistent with a good faith weighing of the environmental impact of the project. Courts may also engage in a substantial inquiry to determine whether there has been a clear error of judgment. See, for example, Conservation Council of North Carolina v. Froehlke (C.A. 4) 473 F.2d 664 (1973); Cape Henry Bird Club v. Laird (D.C. Va.) 359 F.Supp. 404 (1973); Environmental Defense Fund, Inc. v. Froehlke (C.A. 8) 473 F.2d 346 (1972), and Sierra Club v. Froehlke (D.C. Tex.) 359 F.Supp. 1289 (1973). The last cited case held, inter alia, that an EIS must contain a benefit/cost analysis of the project. The YBC EIS contains nothing remotely resembling such an analysis, only vague, conclusionary statements with virtually no supporting data.

In short, the YBC EIS from HUD is little more than a

post hoc rationalization of a project it has already decided to approve. Having invested a substantial amount of federal funds already, HUD has apparently decided it has no choice except to justify spending more. Furthermore, its EIS uses or relies almost entirely on recycled data from the San Francisco Redevelopment Agency. Doing so is inconsistent with the Congressional mandate of NEPA. See Greene County Planning Board v. Federal Power Commission (C.A. 2) 455 F.2d 412 (1972), cert den 409 U.S. 849. There, the Court of Appeals held that the Federal Power Commission could not, in its EIS, adopt as its own, self-serving statements prepared by the Power Authority of the State of New York. Yet, HUD has done so here, taking at face value the self-serving statements of the San Francisco Redevelopment Agency. NEPA and the courts require more than the EIS prepared by HUD on YBC.

Section 102(2)(C) of NEPA requires a detailed (full disclosure) statement by HUD on:

*The Statement's
format has
been amended
as such*

- "(i) the environmental impact of the proposed action,
- (ii) any adverse environmental effects which cannot be avoided should the proposal be implemented,
- (iii) alternatives to the proposed action,
- (iv) the relationship of local short-term uses of man's environment and the maintenance and enhancement of long-term productivity, and
- (v) any irreversible and irretrievable commitments of resources which would be involved in the proposed action should it be implemented."

One can look in vain for a well-organized, coherent judicially required discussion of these plain and simple requirements. Section 1500.7, CEQ Guidelines, provides in part as follows:

"... The draft statement must fulfil and satisfy to the fullest extent possible at the time the draft is prepared the requirements established for final statements by

Section 102(2) (C). . . .

In particular, agencies should keep in mind that such statements are to serve as the means of assessing the environmental impact of proposed agency actions, rather than as a justification for decisions already made." (Emphasis added.)

Beginning with Section IV (Detailed Descriptions and Probable Environmental Impacts), the EIS purports to furnish the detailed report required by NEPA. From pages 42 to 55 in Section IV, the EIS makes several fundamental observations, but without assessing their environmental significance or cost in terms of the YBC project.

reference
related
in
at
Contrary to the statement (page 51) that "... water is a renewable resource . . .," it is not, as any reasonably competent subterranean geologist knows. There is no data whatsoever to support the claim that water is a renewable resource, nor is there any discussion of the distinct possibility that waste water may have to be recycled to meet future demand. Just as in the case of oxygen, there is a finite quantity of water. The available water is simply recycled by nature and becomes more and more polluted by man.

refer
p.52
Appendix J-1 of the EIS shows a 1972 water demand on the University Mound Reservoir of approximately 28.5 million gallons per day (MGD). The estimated demand in 1983 is 32.0 MGD, of which the YBC project will account for 3.04 MGD, or 0.09%. Although the EIS notes that the ultimate capacity of the Mound Reservoir is 62 MGD, it does not show the source of this water or whether it will be available at all by 1983.

refer
p.43
On July 2, 1973, the San Francisco Board of Supervisors adopted an amended San Francisco Master Plan for Waste Water Management. It did so primarily because of two cease and desist orders issued by the California Regional Water Quality Control Board, San Francisco Bay Region (See Order Nos. 73-1 and 73-2, both dated January 30, 1973). However, the EIS does not mention either order, nor does it indicate that a failure to comply with the timetable set forth in each order may cause the Attorney General of California to take appropriate enforcement action. Such action includes but is not limited to injunctive relief restraining the issuance of any further building permits in areas served by the Southeast and

North Point sewage treatment plants. The EIS simply assumes that the timetable will be met, but does so without any adequate supporting data.

The amended Master Plan for Waste Water Management contemplates eventual abandonment of the North Point Plant. All waste from YBC will then be diverted to the Southeast Plant which will be enlarged. Order No. 73-2 calls for completion of construction of enlarged primary facilities by June 1, 1976, and completion of second-level treatment facilities at the Southeast Plant by June 1, 1977. The City must demonstrate compliance with all the requirements of Order No. 73-2 by September 1, 1977. One of the requirements includes construction of a Bay or ocean outfall to handle waste from the Southeast Plant. The EIS does not indicate whether either outfall will meet either state or federal approval. See Federal Water Pollution Control Act of 1972, as amended at 33 U.S.C. 1151 et seq. Section 101(a)(1) of this Act states that one of its objectives is

"... that the discharge of pollutants into the navigable waters be eliminated by 1985."

However, the EIS in a manner inconsistent with the requirements of the Act, treats San Francisco and YBC wastes in isolation. Even if we assume that YBC wastes will contribute the stated percentage of dry weather flow (0.35% of Southeast Plant capacity after 1980), there is no data whatsoever on areawide waste discharge. Since we do not know what this will be by 1980, there is no way of determining the capacity of the Bay (or the ocean) to handle this discharge (See Marine Protection, Research and Sanctuaries Act of 1972, PL 92-532).

On page 46, the EIS states that "... any increase in liquid wastes must be considered a negative impact until such time as the City has the capacity to provide adequate treatment in 1980." However, the EIS does not provide any data to support the assumption that the City will have the required capacity. Moreover, the EIS concedes that wet weather by-pass will occur at least until 1983 when "retention basins" are scheduled for completion as part of the City's Master Plan. Thus, the EIS concludes that "storm overflows (discharge of raw sewage into the Bay) can be expected to continue for some time into the future. This is in clear violation of the 1985 "zero discharge" requirement in the Federal Water Pollution Control Act.

These two areas - water supply and waste treatment - illustrate major deficiencies of the EIS. YBC is treated in almost complete isolation without due or any regard for construction development in the City around it or within the Bay Area. The same deficiency exists with respect to energy requirements.

Upon completion of the entire YBC project, the total estimated electric energy would be increased by 66,300 KW (See page 52). On the next page, the EIS then states that the Pacific Gas & Electric Company "... can give no firm assurance that electricity will be available in the required quantities at the time of Yerba Buena completion." Based on straight line projections made in January, 1973, the YBC complex would constitute 6.42% of the total San Francisco demand. This figure may increase substantially if demand outside the project area is cut-back.

Indeed, the EIS candidly states that YBC "will have a negative environmental impact to the extent that it contributes to the demand for limited and non-renewable resources. These include natural gas and fuel oil used to generate electric energy.

refer to pp. 95, 96
The motor vehicle is a primary user of a non-renewable resource - gasoline. However, the EIS uses 1965 data to show traffic demand (See pp. 90-91). Figures from 1965 are hopelessly inadequate to show peak hour traffic in 1974. Even before October, 1973, and the beginning of the fuel shortage, there are numerous traffic studies which HUD could have used but did not. For example, the City's Department of Public Works "Plan for Transportation" dated September 13, 1972, had the following to say:

refer to pp. 110, 111
"Facilities designed to handle peak period automobile travel are presently saturated in at least two corridors ... the East and North Bay ... and are likely to be used to capacity in the Peninsula corridor as well within a few years."

And:

refer to p. 107
"Within the downtown core, parking facilities, both on street and off-street, legal and illegal, are used beyond their practical capacities."

refer to
pp.
110 - 112

It is possible that this picture has changed because of the fuel shortage. However, the EIS makes no attempt to deal with the traffic congestion which will clearly occur as a direct result of the YBC project. BART is supposed to induce more people to use rapid transit, but no one knows when, or even if the Transbay tube will go into service, or whether it can continue to operate at its present level without further funding. Moreover, according to the Metropolitan Transit Commission (MTC), the major streets in the vicinity of the YBC area "are currently at or near their capacity." (See page 94)

updated;
refer to
pp 95-
100

On pages 95 to 102, HUD attempts to deal with the "modal split" of traffic generated by YBC up to 1985. The EIS projects that total employment in the area will be 35,528 persons in 1983. Using the "modal split" from 1965, the EIS then states: "... it can be expected that 77% of all work trips will exit the downtown area during the afternoon peak period." Table IV on page 96 "presents the adjusted modal split applied to the projected YBC employment, and projects that 12,657 of these persons are expected to exit the Project area by automobile during the afternoon peak period." As the MTC stated, this traffic will use streets in the area which are "currently at or near their capacity."

refer to
p. 97

[NOTE:

San Francisco
Can also be
commuters]

The EIS fails to note a 1970 study by the Wells Fargo Bank which concluded that approximately 90% of all new employments in the downtown area went to commuters, not persons living in San Francisco. Consequently, if YBC generates 35,528 new employments as the EIS projects, there may be an even larger number held by commuters. This result is likely to occur because of the shortage of appropriate housing in San Francisco, a fact which the EIS does not discuss.

Thus, if 90% of the new YBC employments are held by commuters, 31,975, not 27,359 persons will exit the downtown area during the peak afternoon period. Using the same "modal split," as the EIS does, one can conclude that about 15,000 persons will exit the downtown area by automobile during the peak afternoon period.

In addition to the afternoon peak period traffic generated by the YBC project, the authors of the EIS have also tried to estimate convention generated traffic. Their estimates appear to be based on material appearing in the EIR prepared by Arthur D. Little, Inc. (ADL). For example, the EIS states on page 97 that the "Exhibit Hall is estimated to generate an

average of 10,500 delegates per convention, and could accommodate a maximum of 50,000 delegates."

refer
to
PP
172, 173

There is little or no data to support these estimates. However, if we assume the afternoon peak period traffic generated as shown in the EIS, there will be an additional 2,464 autos leaving the downtown area then. Because the present parking on vacant areas within the project area will be eliminated by construction, the persons now parking there will have to compete for the proposed new facilities or existing parking near YBC. According to the EIS, the alternative for these persons will require giving up their cars. Charging high daily rates for the use of public garages is supposed to discourage commuter use, but it appears reasonably obvious that doing so will adversely affect anticipated net garage revenues. Such revenue from the proposed YBC garage forms a significant part of the funds needed to amortize Agency bonds.

refer
to
PP
107-
111

It seems quite plain that HUD has not taken into account the synergistic effect (the whole is greater than the sum of the parts) of downtown traffic congestion. Access routes to the Peninsula, the East Bay and the North Bay are now at or near capacity. The projected additional traffic will cause traffic to back up at these access routes and into the major downtown thoroughfares. In addition to slowing bus traffic, added traffic will cause greater air pollution. Autos circling to find either garage or curb space will have the same effect. It seems reasonably clear that construction of the YBC project with its associated air pollution would degrade existing ambient air quality standards.

There is a serious question whether the YBC garage can be built at all. Present regulations issued by the Environmental Protection Agency (EPA) pursuant to Section 110 of the Clean Air Act may be modified or completely revised. If a construction permit is required, it is not now possible to say whether it could be approved.

refer
to
PP
114-116

In the discussion of noise appearing in the EIS, HUD makes the revealing statement (page 110): "To bring this area of the City within acceptable noise standards, it would actually be necessary for the project to substantially reduce the existing noise level in the area." However, the EIS does not mention the effect of noise on human beings. If sustained noise occurs, it adversely affects the quantity and quality of work which can be performed. Construction time for the entire YBC project is

refer to
pp 131-133
refer to
p. 116

estimated at 10 years. Though HUD seems to think this is short term, the people affected would certainly not agree. It represents a negative impact of about 10 years duration. Furthermore, the EIS completely omits any discussion of its own "Noise Assessment Guidelines" first issued in 1971.

refer to
pp 179
and
196

The financing of the Public Facilities is dealt with in the EIS in a superficial manner. The Agency has presently been authorized to issue \$225,000,000 in what purport to be lease revenue bonds. It is then proposed that the City lease the Public Facilities at an annual rental equal to the cost of amortizing the bonds over approximately 32 years. If the bonds are issued at 6%, the tax on the incremental value of private development will represent almost 70% of the amortization required for the bonds. This means that private development having a full cash value of over \$370,000,000 must take place in order to raise about \$11.5 million per year by 1984. Thus, in about 7 years, some 6.9 million gross square feet of office and office support space must be built, or about 80% of the average annual increase for all of San Francisco from 1960 to 1972. Unless this occurs, the City will have to draw on its general revenue to meet rental payments due the Redevelopment Agency each year. In its EIS, HUD concedes that use of general revenue will probably occur until 1983. (See Table V on page 136.) However, it completely overlooks the effect on essential City services which would otherwise be financed by general revenue diverted in this way. Some examples include health care, education, rent supplements and housing maintenance programs.

It is implicit in requiring additional revenues from the City that either existing expenditures will have to be reduced or revenues will have to be increased.

Thus, on page 157 of the EIS, HUD states that "... it is anticipated that other resources will be required in the early amortization years to assist in making annual payments. By 1984, there will be an excess of direct revenues which can be deposited into the City's general fund." The EIS omits noting Resolution No. 48-74 adopted by the Board of Supervisors on January 14, 1974. That resolution states that it will be City policy "... in making up any such deficit (in amortization payments), that first resort is to be made to income sources other than the ad valorem taxes of the City and County of San Francisco."

refer to
p. 32
and Appendix E.

Nor does the EIS note that litigation challenging the entire financing scheme is currently before the Court in two cases. In one case, the use of tax allocation financing has been challenged as being in violation of the equal protection clause of the Fourteenth Amendment. Both actions challenge its legality under Article XIII, Section 40, Cal. Const. It

may not be the duty of HUD to express an opinion on the merits of the actions. However, it is the duty of HUD to note the environmental impact of diverting or setting aside of about \$11.5 million per year just to help amortize the Agency bonds, together with the impact of diverting about another \$17.4 million in Hotel Tax Receipts per year for the same purpose (See page 131). Diversion of general revenue and, if necessary, ad valorem revenue, to amortize the Agency bonds, will have a seriously adverse effect on essential City services, a fact not even mentioned in the EIS.

It is interesting to note that the Agency indicated that \$10,000,000 accumulated from Hotel Tax Receipts would determine the size of the bond issue. (See page F-1 of Agency Blue Book.) HUD has somehow found another \$7.4 million from the same source, but it does not explain in what way this additional money will be available by 1978. In its own Table XIII (page 154), HUD shows a maximum of \$2.7 million per year available for debt service by 1990. Only 36% of the Hotel Tax Receipts may be used to finance the YBC project, and these receipts average about \$4,000,000 per year.

The Summary of Direct Revenue (page 151) shows beyond any doubt that direct revenue will not meet debt amortization requirements depending on the size of the bond issue and the interest rate as follows.

	<u>Total of</u>	<u>Interest</u>	<u>Annual</u>
	<u>Direct Revenue (000)</u>	<u>Rate</u>	<u>Amortization</u>
FY 1978	\$ 7.836		\$
1979	8.309		
1980	10.726		
1981	12.111		
1982	12.408	5 %	13.053
1983	14.012	5-1/2 %	13.915
1984	16.100	6 %	14.670
1985	16.231	6-1/2 %	15.735
1986	17.598	7 %	17.021
1987	17.773		

The direct revenues rest on some very tenuous assumptions. For example, national experience indicates that the Convention Center will not produce any net income. In fact, the Agency conceded this in its Blue Book. Thus, it may have to be subsidized by the property tax, just as Brooks Hall is now

Convention made
refer to
pp.
167-172

(\$140,000 during FY 1973-74). At the present time, there are no permanent tenants for the Sports Arena, yet HUD projects an exponential net revenue increase beginning with \$564,000 in FY 1978 to \$977,000 in 1986.

refer
to
pp.
149, 150

To the extent that HUD and/or Agency projections fall short of the estimated direct revenue, the balance necessary for amortization will increase - the deficit will be greater (See Table XV on page 156). To this deficit, one must add the loss of general revenue shown on page 158. Finally, if the tax allocation revenue falls short of HUD's projections, there will be an even greater drain on the City's general revenue. The prime rate is now 9-1/2%, and construction loan financing is traditionally 4% higher. While it may be impossible to predict the prime rate when construction begins, it is equally impossible to accept the Agency claim made in 1972 that, in determining the construction and other development costs of the Convention Center, it had a built in cushion for inflationary increases. The EIS does not comment on this at all, notwithstanding inflationary increases greatly in excess of any the Agency could have anticipated or used in 1972.

linear
regression
was used
only to
determine a
reliable
exponential
rate of
growth;
refer to pp.
161-165

Perhaps the greatest single failure of the EIS is the methodology used to make crucial revenue estimates. Using a least-squares linear regression analysis, HUD projects 719,621 convention delegates by 1980 and 874,975 by 1985. If done correctly, such a linear regression would show only 703,046 convention delegates by 1980, with a confidence factor of 0.60, which indicates almost random, not exponential growth as the EIS projects. Both linear regression analyses were based on the same actual figures - convention delegates from 1960 to 1970.

Moreover, the EIS does not show that convention delegates represent only 25% of all visitors to the City. Nor does the EIS show that the total number of visitors to the City has increased in every year except 1971, from 1967 without any new convention facility at all, or that non-convention delegate visitors spend substantially more each year than convention delegates.

statistics
as not
available on
the factors
which influ-
ence convention
trade

What HUD appears to have done is to use an unconstrained forecast to project income, both direct and indirect. Such a forecast ignores all constraints, such as the cost of travelling to San Francisco, the cost of staying here, inflationary increases in virtually every area where convention

delegates are expected to spend money - retail, restaurant and hotel prices, entertainment and so forth.

What the EIS states will be spent by convention delegates is based on a demonstrably erroneous linear regression which is almost random in nature. The EIS seems to rely on a sort of raw delegate demand which, in turn, it claims will spend so much money. Normally, to compute a marginal delegate impact, one subtracts from a gross figure, the convention delegates that would have come to the City without the YBC project. However, the EIS does not appear to rely on any coherent interpretation of what has gone on in the past.

By using past data as to what actually occurred, the YBC Convention Facilities will probably produce an increase of 90,000 to 100,000 delegates over 1973 levels. Thus, unless something happens to affect the convention business, one can expect about the same flat curve which has occurred several times in the past.

However, the EIS projects an exponential (ever-increasing) growth in delegates if YBC is built. Actually, if the private development projected occurs, there may be far more non-convention visitors to the City than before. Without a substantial increase in Class I hotel capacity, the number of convention delegates may actually decline.

The fundamental error in the EIS begins and ends with the hypothetical and probably illusory notion that an exponentially increasing number of delegates are just waiting to use the YBC Convention Facilities. The marginal economic effect on the City all stems from this one erroneous assumption.

On the whole, the EIS appears to be propaganda used by HUD to support its already heavy financial commitment to YBC and to justify whatever additional funds HUD must contribute to complete the project. Good faith objectivity is required of federal agencies, particularly with respect to evaluation of environmental impacts. See Environmental Defense Fund, Inc. v. Corps of Engineers (C.A. 8) 470 F.2d 289, 4 ERC 1721 (1972).

Good faith objectivity precludes consciously slanted or biased impact statements under NEPA. The EIS here falls far short of good faith objectivity measured by this standard.

A formal
cost-benefit
ratio is
neither
required
nor
appropriate
for the YBC
project.
There has
been a
full discussion
and balancing
of HUD's
independent
analysis
of the
environ-
mental
costs and
economic
and social
benefits
of the
proposed
project.

Finally, there is nothing in this EIS which even remotely resembles a benefit/cost analysis or ratio. The benefit/cost ratio is basically a comparison of the anticipated "benefits" derived from the project with the estimated "costs" over its estimated life span. Both benefits and costs must be expressed in monetary terms and then discounted to present worth. Since benefits and costs will accrue over each year of the project's life, all future figures must be discounted to today if a proper calculation of net benefits is to be obtained.

For example, the EIS projects that existing office buildings will lose tenants due to the construction of new office buildings in YBC. With a net income lower than that which they now receive, their owners will pay less tax, and their assessed value may be reduced. However, the EIS does no more than note that this will happen; it does not assign a "cost" to this fact. The EIS also notes that residential property south of YBC will increase in value as a result of YBC development. Experience in the vicinity of some BART stations shows that owners increase rents when property values rise. Yet, the EIS assigns no cost to what will undoubtedly cause the break-up of a cohesive, ethnic neighborhood such as South Park, where the residents are almost all low income groups. The EIS omits any reference to the "cost" of relocating people who will no longer be able to afford to live there. The EIS omits any reference to relocation housing resources for these people, and any reference to the City's housing inventory which may have to absorb those relocated.

Once a benefit/cost ratio is established showing that the benefits exceed the cost, then the project may be considered justified. Here, however, no such ratio has been established. In Calvert Cliffs' Coordinating Committee v. Atomic Energy Commission (C.A. D.C.) 449 F.2d 1109, 1115 (1971) the Court of Appeals stated:

"The reviewing courts probably cannot reverse a substantive decision on its merits under Section 101, unless it be shown that the actual balance of costs and benefits that was struck was arbitrary or clearly gave insufficient weight to environmental values. But if the decision was reached procedurally without individualized consideration and balancing of environmental

factors - conducted fully and in good faith - it is the responsibility of the courts to reverse."

The EIS on YBC, by any objective standard, is arbitrary and clearly gives insufficient weight to environmental values. Indeed, HUD could not have given environmental values sufficient, if any weight without the benefit/cost analysis which is so conspicuous by its absence. Consequently, the EIS here should undergo substantial in depth revision.

Lastly, the discussion of alternatives in the EIS is not in conformity with CEQ Guidelines [See 36 FR 7725, §6a(iv)]. This section provides as follows:

"A rigorous exploration and objective evaluation of alternative actions that might avoid some or all of the adverse environmental effects is essential. Sufficient analysis of such alternatives and their costs and impact on the environment should accompany the proposed action through the agency review process in order not to foreclose prematurely options which might have less detrimental effects."

The quoted Guideline is consistent with language in Calvert Cliffs, supra, wherein the Court of Appeals stated that: "NEPA requires that an agency must - to the fullest extent possible under its other statutory obligations ... consider alternatives to its actions which would reduce environmental damage. That principle establishes that consideration of environmental matters must be more than a pro forma ritual."

In this EIS, one example should suffice to show how completely it falls short of the CEQ Guidelines just quoted, and that it is no more than a ritualistic observance of an inconvenient formality. Alternative D in the EIS suggests using the YBC project area in accordance with Part D (Section 740) of the Housing and Urban Development Act of 1970. Part D provides as follows:

"Sec. 740. It is the purpose of this part to provide our cities, which urgently need to augment their inventories of housing (particularly housing for low and moderate income families) and to find sites for essential public facilities and additional sources of employment, but have

virtually no vacant land upon which to build, with a program which will make possible the more rational use of urban land and space that is currently occupied by industrial or commercial uses which though not physically blighted are functionally obsolete or uneconomic, or of land and space that is not usable in its present state because of natural hazards or inadequate development, so that in appropriate cases major rebuilding projects (including new communities in town) may be undertaken without major residential clearance activities and with minimal displacement."

Section 712 establishes certain standards for eligibility, two of which are as follows:

"(6) will contribute to good living conditions in the community, and that such community will be characterized by well balanced and diversified land use patterns and will include or be served by adequate public community, and commercial facilities (including facilities needed for education, health and social services, recreation, and transportation) deemed satisfactory by the Secretary;

"(7) makes substantial provision for housing within the means of persons of low and moderate income and that such housing will constitute an appropriate proportion of the community's housing supply;"

HUD may guarantee bonds in an amount up to 90% of the actual cost of the land development. Consequently, the assumption in the EIS that "... City funds would be required to purchase either 18 acres for the Central Blocks area or the 18 acres for the park and low and moderate income housing" is erroneous. A non-profit corporation may qualify as a new community developer, acquire the land in YBC, using HUD guarantees and build whatever housing good planning requires. Unlike a private developer, a non-profit corporation is not in business to maximize profit.

A new community is a program administered by HUD and represents a Congressional endorsement of one way to deal with

refer to
p.
207
urban renewal. Hence, one might expect more than the superficial treatment Alternative D got in the EIS. Although HUD was advised by letter and telephone that the initiative was flexible as to percentages allocated to a particular land use, its EIS treats the initiative proposal as submitted. Furthermore, HUD concludes that the entire area is inappropriate for residential uses because of "the existing high level of traffic, air pollutant concentrations, and noise generated by vehicles" (Emphasis added.) There is no data in the EIS from which one can conclude or determine whether some residential development in YBC is even normally unacceptable. HUD does not discuss the possibility of using C-3-0, C-3-S and M-1 land uses to buffer any noise generated on major thoroughfares. Moreover, eliminating existing parking in the YBC area would greatly reduce the air pollutant concentrations from the 4,200 cars which park there daily.

What HUD is really saying is that it has gone so far now in the profligate use of federal funds, it cannot even consider supporting the expense of replanning the area. It might be added that the City has used its public funds, not those of HUD, to plan the Convention Facilities - an amount which by now, is over \$8,000,000.

This is the very thing the Court of Appeals said should not happen - there should be a consideration of less environmentally harmful alternatives before there has been an irreversible commitment of resources. See Calvert Cliffs, supra. Here, HUD has decided it has gone too far to retreat. Having made this decision, it has then sought to justify its decision by the self-serving assertions condemned in Greene County Planning Board, supra. In fact, it has gone even further by using essentially all the material submitted by ADL. It has engaged in little or no independent review or research. For example, the EIS says nothing whatsoever about the extravagant use of energy to be consumed by the high-rise office space which will be privately developed in YBC. Today's buildings are blatantly unresponsive to human or environmental factors. They are routinely overequipped mechanically to handle heating and cooling loads that are far too high, and they are universally overlit.

refer to
to references
in footnotes
throughout
text and
to p. v.
to pp.
59, 60 and
appendix I.
An adequate discussion of alternatives to the YBC private development should necessarily include at least some reference to different building design. The day of the office monolith has come and gone, but HUD does not even mention the

infer to
57, 60
Appendix
I.
possibility of buildings on a reduced scale, or buildings designed to take into account the need for lower energy consumption.

Finally, some excerpts from affidavits signed by persons who would qualify as expert witnesses are hereinafter quoted. They show by contrast with the EIS from HUD how little attention was given to environmental considerations in its EIS on YBC.

These "excerpts" are meaningless there is no citation to indicate when they were made nor that they relate specifically to the EIS prepared by HUD

1. "There is, in my professional view, a high probability of substantial strong ground motion from nearby earthquakes with respect to the site(s) of the ... Yerba Buena Project Area(s). ... A major portion of the Yerba Buena Project Area site is located within one of the zones that experienced high intensity from the 1906 San Francisco earthquake. See the Map of Prof. H. O. Wood in the Report of the State Earthquake Investigation Commission (A.C. Lawson, Editor, 1907)."

2. "... The Yerba Buena Project is located approximately eight (8) miles from the San Andreas Fault and twelve (12) miles from the Hayward Fault. The Hayward and San Andreas Fault System constitutes one of the major seismically active fault systems in the western hemisphere. The presence of said fault system presents a major hazard to life and safety in the San Francisco Bay Area particularly with respect to high rise structures located in natural deep alluvium and/or man-made fills.

"... The Yerba Buena Project Area is located in an eighty-seven (87) acre area composed primarily of alluvium and/or man-made fill. ... The Yerba Buena Project Area is in a zone that can be expected to experience 'very high intensity' and 'high intensity' shaking in the event of a 'great' or 'major' earthquake on the Hayward and/or San Andreas Faults. Such 'very high intensity' or 'high intensity' shaking would impose substantial stress on all structures in such

zone, but particularly on high-rise structures."

3. "It is my professional opinion, given without any qualification whatsoever, that the YBC Project will have a massive and unmistakable impact on every major aspect of the San Francisco environment. Not only its primary effects (such as changes in land use, increased population densities, altered traffic patterns, negative visual impacts and changes in housing supply) but also its secondary ramifications will be virtually limitless in a City so small, compact and vulnerable as San Francisco. Some of the secondary ramifications I refer to are the effects on public health (through forced dispersal of the aged and the ill), composition of the City's population (through elimination of low-income housing already in short supply and severe disruption of not merely the YBC Project Area itself but also adjacent neighborhoods which will inevitably be quickly affected), and certain long range job opportunities in the City which are inseparable from the supply of inexpensive space for enterprises with low capital investment requirements.

...

"The record to date indicates that the architects and planners of YBC have dealt with many different problems, ranging from visual impact to traffic congestion, in an unconvincing and superficial way. For example, the recent planned reduction in parking facilities from four thousand (4,000) to two thousand (2,000) spaces does not measurably ameliorate the traffic threat to existing downtown amenity because, typically enough, the very prospect of an enormous convention center has already stimulated the construction of big private parking structures (such as the Hearst Parking Garage) on the periphery of the Project Area. Nor does the planning of YBC take the slightest account of the overburdening of already overcrowded residential

structures just beyond the edges of the Project Area. Still less notice has been taken of the hapless children and welfare mothers living nearby who, though small in number, are nevertheless human beings entitled to respect by both HUD and SFRA. These kinds of direct environmental impacts on contiguous areas will be easily discernable once the "South of Market" area is totally transformed by YBC and by other large scale development it will inevitably generate. In short, the long-range and by far the most important environmental impacts of YBC have been largely ignored by the responsible planners, to the severe detriment of the City and its residents."

4. "I have considered at length and in detail the effect of increased accommodation of the automobile as a means of transportation in San Francisco on the physical environment of the City, on the economic vitality of downtown San Francisco as a cultural, retail and employment center, and on the financial viability of public transit facilities. I have concluded that increased automobile use has a serious impact on each of these. That conclusion is documented in the previously mentioned reports. I have also considered in particular the effect of providing substantially increased parking in downtown San Francisco on automobile use for travel to and within the city and on highway, bridge and street requirements associated with increased parking facilities. I have concluded that major increases in parking facilities in downtown San Francisco are the primary generator of increased automobile use for travel to and within that area. Conversely, the absence of additional parking facilities will be the major constraint on increased automobile travel to and within that area.

"Based upon my research I believe that the provision of 4,000 parking spaces in Yerba Buena Center would have a dramatic impact on the physical environment of the downtown area, of the entire city and of the Bay Area. There

would also be a substantial impact on the present and potential use of public transit, especially the Bay Area Rapid Transit System, the Alameda-Contra Costa Transit Company, and the San Francisco Municipal Railway, thereby threatening their ability to maintain or increase levels of service. The spiraling consequences could include an even greater use of automobiles for travel to and within the city than would be accounted for solely by the parking facilities alone.

"I would estimate that the addition of 4,000 parking spaces could potentially increase the number of cars entering and circulating in downtown San Francisco by as many as 15,000 to 17,000 per day. If this were to occur, there would be a vast impact on congestion already present in the area immediately surrounding the center and on streets connecting the center to freeways, bridges and major arterials. The latter facilities would also become more congested. Since it is known that added congestion increases air pollution from carbon monoxide exhausts, there would be a serious impact on air pollution both from the increased numbers of cars traveling in the city and from the resulting congestion.

"An additional consequence of that project may be to encourage additional vehicle ownership in the City of San Francisco. That city presently has the highest automobile registrations per square mile of any city in the United States, according to my research. An increase causes a serious strain on the ability of residential neighborhoods to provide adequate parking and to maintain a livable environment."

5. "It is my firm professional opinion, based on extensive research in the area, that automobile usage in urban areas imposes major social and environmental costs upon the community. For example, automobile usage is normally the major cause of smog.

"It is my expert opinion that past and present policies of municipal governments in the San Francisco Bay Area, and past and present policies of the Federal Government that have impacts in the San Francisco Bay Area have encouraged over-use of the automobile as a means of transportation to the serious detriment of the livability and environmental quality of said Bay Area.

"It is my expert opinion that comprehensive environmental impact statements on ... Yerba Buena urban renewal project(s) is likely to produce data resulting in redesign of the transportation aspects of said project(s) to achieve diminished reliance on the automobile and increased reliance on BART and pedestrian modes of transportation."

6. "... Similarly, the provision of at least an equal number of parking facilities in the Yerba Buena Project (2,000) will substantially and negatively affect the quality of the human environment of the City and County of San Francisco.

"For purposes of this affidavit, 'environment' includes not only the quality of the air and noise, but as well the quality of life in a number of other fundamental ways; the movement of automobiles in urban areas creates a tension condition that is diametrically opposed to human well-being; automobile usage diminishes the quality of pedestrian access to urban amenities (and once he has left his car, every driver becomes a pedestrian).

"The unique economic context of automobile usage (in which each increment of use is not paid for directly by the user) causes use of the automobile to increase in direct relation to the provision of amenities serving the automobile - such as additional downtown parking facilities. In short, the provision of in excess of two thousand (2,000) parking facilities each in ... Yerba Buena urban renewal project(s) will

directly generate increased use of the automobile. This will operate to the detriment of public transit systems that operate on a pay-as-you-go basis, including the Bay Area Rapid Transit (BART) System.

"... Any action at this time which abets or enhances use of the automobile concomitantly threatens the potential success of BART and other public transit systems in existence or proposed for the Bay Area.

"It is my professional view that the actual construction of the number of parking facilities proposed to be constructed in ... Yerba Buena Project(s) will irreparably injure the environment and life quality in the cities concerned by aiding and abetting a transportation trend already widely recognized by urban planning experts as socially, economically, technically and environmentally deleterious."

7. "Based on my professional experience and knowledge I state unequivocally that the YBC Project, as currently proposed, will have a significant impact on the environment of the City and County of San Francisco. The major specific areas in which this impact will be felt include, but are not limited to, the following: Patterns of population distribution, automobile usage, traffic density and congestion, (and attendant air and noise pollution), sewage and garbage disposal, energy supply, soil conditions, seismic problems attendant on extensive and concentrated high-rise construction, contiguous land-use impact."

8. "It is my firmly held view that if an urban redevelopment facility requires extensive parking facilities in order to be economically and functionally successful, then it should not be built in an area where such parking facilities will either cause or further aggravate a serious traffic congestion problem.

"It is my view that BART can and will provide

a significant proportion of the transportation service needed for the Yerba Buena Project Area. Other public transit facilities, such as the recently implemented Golden Gate Transit System, also serve the Yerba Buena Project Area and connect it with areas, like Marin County, not served by BART.

"The San Francisco Municipal Railway System can tailor its transit operations to supplement those of BART and the Golden Gate Transit System. In any event, I strongly feel that an environmental impact study of Yerba Buena must explore feasible alternatives to private automobile access. I know that exploration and development of such alternatives is absolutely essential if the environmental degradation of the City and County of San Francisco and surrounding areas is to be arrested."

Following is a list of the persons portions of whose affidavits are quoted above:

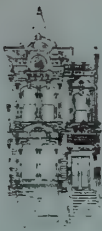
1. Bruce A. Bolt
2. George P. Simonds
3. Allan Temko
4. John M. Sanger
5. Douglass B. Lee
6. Alvin L. Spivak
7. Charles B. Turner, Jr.
8. Lester Cohen

It has been reported that the City faces a serious budget crisis for FY 1974-75. According to published reports, inflation and a recent \$18 million pay raise to City employees represent the source of the problem. It would be speculative to comment on budget needs in future years. However, inflation is certain to continue. Yet, as the EIS concedes, it will be necessary to use the City's general revenue to help amortize

Agency bonds during the early years following issuance. This is true even if one takes an optimistic view of all YBC direct revenue projections.

It seems clear that use of general fund revenue for bond amortization will divert a substantial amount of public money necessary to finance essential public services. Again, according to published reports, the City will have to pay a higher percentage of welfare costs, it may not be the beneficiary of revenue-sharing funds in the same amount as before, the law enforcement (police) budget is being reduced, the Adult Probation Department's budget is being reduced and so forth. A solution to these budget problems will not be found by using general revenue of the City to finance a civic monument in YBC.

W.M.B.
4-10-74



HERITAGE

May 17, 1974

Mr. James P. Jaquet
Program Manager, Area C
Operations Division
Department of Housing & Urban Development
One Embarcadero Center, Suite 1600
San Francisco, California 94111

Re: Draft Environmental Statement
Yerba Buena Center
Urban Renewal Project (Calif. R-59)
San Francisco, California
HUD reference 9.1PM-C

Dear Mr. Jaquet:

As we mentioned in our letter of May 2, 1974, we were unable to submit our full comment on the draft EIS for the above-referenced project until we had had a chance to review the "307" finding made by HUD on the PG & E substation. We have now seen the copy of the determination requested from your office by the National Trust for Historic Preservation and submit herein our comments for inclusion in the final EIS.

*refer to
pgs 75, 76
and Appendix
WK*

One of the principal reasons for demolition of the Willis Polk-designed substation building on Jessie Street, as stated on page 72 of the draft EIS, is that it "has been determined by HUD to be infeasible of rehabilitation". The footnote to that sentence further states "This determination was made in accordance with Section 307 of the Housing Act of 1969, the main purpose of which is to assure that economically and structurally sound buildings are not unnecessarily demolished."

We understand that the documentation supporting that finding of infeasibility comprises the following:

1. A rehabilitation analysis by Leonard S. Mosias, AIA, dated February 5, 1964.
2. A list of code compliance requirements, undated, prepared by the San Francisco Redevelopment Agency.
3. A letter from PG & E, dated July 16, 1968, stating their intent to vacate the structure.
4. A map of the area and photographs of the building.

May 17, 1974

5. A letter from M. Justin Herman, Director of the San Francisco Redevelopment Agency, dated October 22, 1968, transmitting the above-listed items to HUD and requesting a "307" finding.
6. A memorandum from George P. Wing, Real Estate Branch, to James D. Richardson, Assistant Regional Administrator for Renewal Assistance, dated November 12, 1968, recommending approval of a "307" finding.
7. A letter, copy undated, from Richardson to Herman approving the "307" determination.

In evaluating the adequacy of the EIS, certain comments are in order regarding the "307" determination which evidently caused the Agency to proceed with plans to demolish the substation. Upon review of the relevant material, we would offer the following:

1. The analysis by Mr. Mosias and the structural engineer appears to be thorough, objective, and factual. The structural analysis supports the contention that the building is sound, although some maintenance has been neglected. The \$ 50,000 estimate to bring it up to present code standards, while measured in 1964 dollars, includes some work which might not be required for some uses.

It is interesting to note that of a possible 163 deficiencies, the professional architect and engineer survey team found only 13 deficiencies to note on the report.

2. The photographs submitted by the Agency in support of their request for demolition approval appear less objective.

Photo #2 shows the truck congestion in Jessie Street and the caption states this to be a blighting influence. It is hard to see how this affects the analysis of the feasibility of retention or the condition of the structure. The argument is no longer applicable, since the buildings across the street served by the trucks have been demolished and the trucks are gone.

Photo #3, of a crack in the Northeast wall, bears the caption that this is typical of the deterioration of the structure. In fact, this wall is not at all typical being an unfinished wall which formerly abutted a now-demolished structure.

Photo #4 bears a caption suggesting that the presence of the substation near the church presents "a restraint on the design". It could be argued by design professionals that the relationship of the two buildings is mutually beneficial.

Photo #5, caption erroneous, same comment applies as on photo #3.

Photo #6 of a window detail to show "deteriorated terra cotta trim", again a fallacy since this purely decorative element's deterioration was caused by trucks backing into it while serving the now-demolished structures across the street.

3. Mr. Herman's letter of October 22, 1968, refers to an estimated rehabilitation cost of "about one half million dollars" but does not make it entirely clear that this cost would be for a new power station and equipment. On the second page, the Agency states that retention and conversion is economically infeasible, a statement based apparently more on desire than on fact. It is further stated that the "only 16,400 square feet of interior space" would not allow profitable conversion to other uses and that a warehouse would be the only practical use, but would be inappropriate.

In fact, the building presently contains some 30,400 square feet of floor space, including the many balconies. No calculations are presented which show that conversion of this structure to other uses in accordance with the Redevelopment Plan would be infeasible. Given the actual cost of land and structure, without the premium paid for PG & E equipment, and the level of activity planned for the YBC project, it appears that rehabilitation for adaptive use could be quite profitable.

The Agency's further argument that demolition of the structure would improve the visual impact and physical linkage of the project could be well debated by other design professionals and does not seem germane to the feasibility of the retention question.

4. Mr. Wing's memorandum of November 12, 1968, prepared by Leevern Johnson, Realty Officer, appears to us to be a rather superficial and unprofessional effort. The statement that "the building is old and in very poor condition" does not adequately describe the situation. The professional analysis by the Agency's architectural and structural engineering consultants showed quite clearly that the structure was not in "very poor condition". The fact that it is old does not necessarily mean it is worthless. The estimate that it "was built about the turn of the century" could have been substantiated considerably more accurately by looking at Willis Polk's original drawings on file with the owner. The statement that considering the \$ 50,000 cost to bring the structure up to code "makes it not feasible" somehow appears lacking, as does the statement that demolition "appears to be the only reasonable approach".

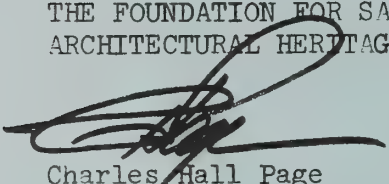
Our review of the "307" finding leads us to the conclusion that it is far from adequate and that it is a determination which should be reviewed. The fact that the findings of the EIS are at least partially based on the "307" determination concerns us greatly and raises serious questions about the conclusions of the EIS, itself.

May 17, 1974

We appreciate this opportunity to offer our comments.

Sincerely,

THE FOUNDATION FOR SAN FRANCISCO'S
ARCHITECTURAL HERITAGE



Charles Hall Page
President

cc: Mrs. Ann Webster Smith; Compliance Officer, Advisory Council on Historic
Preservation
Mr. George Karas; Senior Program Officer, Environmental Planning Division,
U.S. Department of Housing & Urban Development
Mr. John L. Frisbee III; Western Field Services Representative, National
Trust for Historic Preservation
Mrs. G. Bland Platt; President, San Francisco Landmarks Preservation
Advisory Board



HERITAGE

May 2, 1974

Mr. James P. Jaquet
Program Manager, Area C
Operations Division
Department of Housing & Urban Development
One Embarcadero Center, Suite 1600
San Francisco, California 94111

Re: Draft Environmental Statement
Yerba Buena Center
Urban Renewal Project (Calif. R-59)
San Francisco, California
HUD reference 9.1PM-C

Dear Mr. Jaquet:

Heritage appreciates the opportunity to officially submit our comments on the above-referenced Environmental Impact Statement. It is encouraging to note on Mr. Price's letter of transmittal that it is not too late to make changes to the original Urban Renewal Plan which will improve the quality of the project.

As the only city-wide citizen's organization dedicated to the architectural heritage of this city, our primary concern is for those structures of significant architectural merit within the project area which may be affected under the current plan. Section IV C 3, which deals with "Historic Places" under the broader category of land use, discusses St. Patrick's Church and plans for its retention. The implication is made that this building is being retained because it is a landmark designated by the City's Landmarks Preservation Advisory Board.

This section also mentions another structure "in which some public interest has been expressed." This is the P G & E substation designed by the renowned San Francisco architect Willis Polk. The mention of this building on page 72 of the draft EIS does not adequately describe the structure, nor does it give credit to the architectural merits inherent therein. Willis Polk was one of the two or three most influential and important architects of California architecture during the first part of this century. He was, at that time, head of Daniel Burnham's San Francisco office. The building has been judged by many professionally-qualified observers as one of the most interesting in San Francisco. Perhaps its lack of more universal acclaim is due to the fact that it was not visible from the street until a number of the surrounding buildings were cleared for parking lots. Attachment #1, from the Junior League's 1966 survey and inventory of the City's architectural heritage, officially adopted by the City, more fully documents the great importance of this building. The fact that the Landmarks Preservation

*refer to
pp. 75, 76
and Appendix
K*

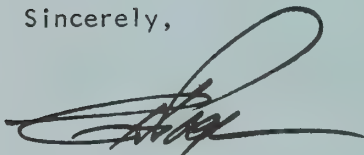
Advisory Board has not designated it a landmark should not be taken as a negative determination of its historical and architectural value. The public landmark recognition process is subject to political pressures which are not necessarily limited to the specific issue at hand.

According to the EIS mention of the substation on page 72, the structure "has been determined by HUD to be infeasible of rehabilitation." We believe that feasibility must be determined in view of potential use, and we seriously question the reliability of this finding. The National Trust for Historic Preservation requested a copy of this finding in their letter of March 15, 1974. On April 25, 1974 you showed members of the Trust's staff a copy of the documentation on this subject but stated that it would take up to two weeks to make a photocopy of it for study because of the pressure of other business. Since it will not be possible to evaluate the adequacy of this determination until the documentation held by your office can be copied and supplied to the National Trust, it will not be possible to comment upon this portion of the EIS. We trust that the forty-five day time period for comment will thus be extended until this material is received and can be adequately reviewed.

Needless to say, we cannot agree with the summary conclusion on page 73 that "in general, the Project appears to have a positive impact upon places of historic interest within the area," when, in fact, one of the two most important properties to be considered under this section is slated for demolition. We would, therefore, suggest that the following corrections be made prior to the publication of the final EIS:

1. The EIS be amended to show the true significance of the substation, certainly no less than that of its neighbor, St. Patrick's Church.
2. The determination of infeasibility for rehabilitation be restudied with an eye toward finding uses which would be compatible with the project and would make retention economically feasible.
3. The EIS be amended to show the alternatives for retention and adaptive use.

Sincerely,



Charles Hall Page
President

CHP/lg
Enclosure

cc: Mrs. G. Bland Platt, President, San Francisco Landmarks Preservation Advisory Board
Mr. Robert Rumsey, Director, San Francisco Redevelopment Agency
Ms. Ann Webster Smith, Compliance Officer, Advisory Council on Historic Preservation
Mr. John L. Frisbee III, Western Field Services Representative, National Trust for Historic Preservation
Mr. Allan B. Jacobs, Director of Planning

rea, and it is just this unusual of its eventual renaissance. Important buildings which survive the burned area of 1906 are the Old Mint and the Post Office. Through the great fire intact, in.

Mission Streets, is a massive monique-Classical Revival style of quite comparable to it west the old post office in Portland. architect of the amazing Old ding in Washington, D. C., 1869 and completed in 1874. tick, the exterior of the base e portico being Rocklin granmbia sandstone.

-lined exterior, the interior is though such touches as fine balustrades, and rose marble which craftsmanship was in-teristic of the interior, sug-itarian and industrial purpose ment of the ceilings; shallow floors are not concealed by a plastered by way of finish in the ceiling of the upper portogated metal arches.

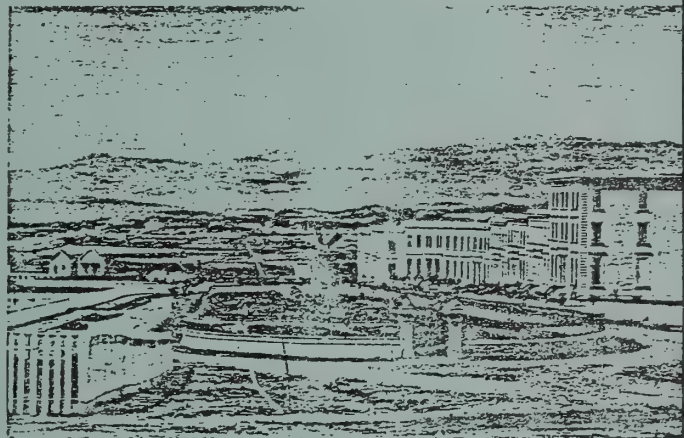
with the Old Mint. For years ice fell off at odd intervals, and as removed in the interests of an outstanding monument to blic building was supposed to majesty of the nation and re-ple.

States Court of Appeals Building, is a superlative governmental intained and improved by its se high court judges admire s granite Mannerist-Baroque James Knox Taylor, architect t. The building was authorized ie depression that immediately opriation to cover considerably shing than had been planned

he building, which was com-dor most often associated with ly were imported to exe-terior, and they left nothing nize, in wood, in marble, in Altogether, the building is a lavish display of public wealth

which the public should expect to find in some of the more important buildings it finances.

The Pacific Gas & Electric Co. substation, 222-226 Jessie Street, tucked away in a dead-end alley between Market and Mission, is one of San Francisco's few great examples of the architectural possibilities of the brick facade. Originally built in 1881, and subsequently enlarged twice, the substation was damaged in a fire in February, 1906, and almost destroyed in the earthquake and fire of April, 1906. Rebuilt in 1907, the building owes its present character to Willis Polk, at that time head of the San Francisco office of D. H. Burnham and Company, the Chicago firm that had prepared the 1905 plan for the conversion of San Francisco to a model of the "city beautiful" along the lines of Paris and Washington. As a result, it is not altogether surprising



These fine "London Roman" town houses graced South Park in 1856

that the architectural ideas of Polk and Burnham should have been applied to an electric substation in a South-of-Market alley.

This noble structure is a simple (but quite sophisticated) exercise in the development of balance, line, and texture. Though the eye focuses on the ornamental, vertical, and symmetrical piercings and moldings, it is the horizontal line of the rough, red wall that catches the breath. Yet, of course, it is the elaborate applied inventions that make the plain surface more than just another brick wall. This is a building that many San Franciscans have never seen, and it is worth going out of one's way to look at it.

Fronting on Mission, with its back pushed up almost to the front of the Jessie Street Substation, is another brick structure of merit, *St. Patrick's Church, 756 Mission Street*. St. Patrick's was dedicated in 1872 as successor to an earlier St. Patrick's that occupied the site of the Palace Hotel. The tower and walls survived the fire of 1906, with the result that this good example of Victorian Gothic architecture still presents much the same appearance it did in the San Francisco of the mid-nineteenth century.

UNIVERSITY OF CALIFORNIA, BERKELEY

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NATIONAL HOUSING AND ECONOMIC DEVELOPMENT LAW PROJECT
EARL WARREN LEGAL INSTITUTE
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BERKELEY, CALIFORNIA 94704
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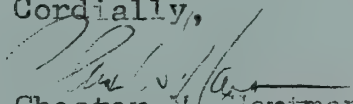
June 24, 1974

Mr. James P. Jaquet
Program Manager, Area C
US Dept. of Housing & Urban Development
One Embarcadero Center, Suite 1600
SF Cal 94111

Dear Mr. Jaquet:

I have been out of the area for a good deal of the time recently and so have not had the opportunity to draft a response to the Draft EIS for Yerba Buena Center. I would, however, like to submit the enclosed article, in lieu of detailed comment. It raises many points of criticism regarding the economic impact of YBC, some of which are dealt with in the EIS, other of which are either inadequately dealt with or omitted altogether.

Cordially,


Chester W. Hartman

HUD NOTE: The enclosed article was too lengthy to reproduce here. It is entitled "The Illusion and the Reality of Urban Renewal: A Case Study of San Francisco's Yerba Buena Center", by Robert P. Kessler and Chester W. Hartman, Land Economics, November 1973.



National Trust for Historic Preservation

WEST COAST OFFICE

802 MONTGOMERY STREET

SAN FRANCISCO, CALIFORNIA 94133

(415) 989-6428

May 21, 1974

Mr. James P. Jaquet
Program Manager, Area C
Operations Division
Department of Housing and Urban Development
One Embarcadero Center, Suite 1600
San Francisco, California 94111

Re: Draft Environmental Statement
Yerba Buena Center
Urban Renewal Project (Calif. R-59)
San Francisco, California
9.1 PM-C

Dear Mr. Jaquet:

Carol Galbreath, Regional Planner for our staff, and I have had an opportunity to review the materials relating to the Section 307 determination on the Jessie Street Substation (Parcel 3706-26), which you have made available to us.

In general, we find ourselves in agreement with the comments forwarded to you by the Foundation for San Francisco's Architectural Heritage, in their letter dated May 17, 1974. We have several additional comments to make, as well.

We feel that the draft EIS fails to consider the historic/architectural merit of the Jessie Street Substation adequately. Whether a building is a locally designated San Francisco landmark is only part of the basis for determining historic/architectural value. I would note that of the 27 San Francisco properties listed on the National Register of Historic Places, fewer than ten are officially designated landmarks of the City and County of San Francisco.

It is our opinion, based upon the materials made available to us, that the Section 307 finding has superficially examined the feasibility of an adaptive reuse of the substation. These materials clearly indicate that the finding has addressed itself to the rehabilitation of the substation for continued use as a generating facility. We find no evidence that a feasibility study for a commercial reuse has been developed.

We believe there is a substantial discrepancy between Mr. Leonard Mosias' analysis of the substation and the field inspection of the building undertaken by Mr. George P. Wing, Acting Chief of the Regional HUD Real Estate Branch. Mr. Mosias' report, supported by documentation of structural analysis, states that the "building is in fair condition but maintenance has been neglected." Mr. Wing's memorandum of November 12, 1968 to James D. Richardson, Assistant Regional Administrator for Renewal Assistance, concludes that "the building is old and in very poor condition," a contention which appears to us based upon photographic rather than structural evidence.

As you have advised us, the main purpose of Section 307 "is to assure that structurally or economically sound buildings are not unnecessarily demolished." Given the discrepancy between Mr. Mosias' and Mr. Wing's reports, and that no sound economic study of the conversion of the substation to an alternate use appears to have been developed, we question whether the purposes of Section 307 have been satisfied.

In sum, we feel that neither the Section 307 determination nor the draft EIS, as they relate to the Jessie Street Substation, can go unchallenged. The building appears to have historic/architectural merit through its associations with Willis Polk and as an architectural type. It appears to us that the evidence regarding the economic feasibility of reuse of the substation is inadequate to support demolition.

We would suggest the the following steps are in order.

1. The substation should be reviewed by the appropriate authority to determine whether it meets the criteria for nomination to the National Register of Historic Places. Until such time as it can be reviewed, every effort should be made to secure the building from vandalism and further deterioration.
2. A feasibility study of the structure, oriented towards its adaptive reuse, should be undertaken. An architect and/or engineer and an individual experienced in the commercial reuse of historic structures should be consulted in any such study.
3. If it is determined that reuse of the building is feasible, a satisfactory opportunity should be afforded the San Francisco preservation community to develop a program and financing for its rehabilitation.

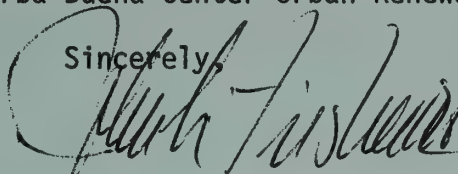
Mr. James P. Jaquet

-3-

May 21, 1974

We believe that this is a reasonable request. We appreciate the opportunity to comment on the Yerba Buena Center Urban Renewal Project.

Sincerely,



John L. Frisbee, III

✓ Western Field Service Representative

cc: Mrs. G. Bland Platt, President, San Francisco Landmarks Preservation
Advisory Board
Mrs. Ann Webster Smith, Compliance Officer, Advisory Council on
Historic Preservation
Mr. Charles Hall Page, President, Heritage
Mr. George Karas, Senior Program Officer, Environmental Planning
Division, U.S. Department of Housing & Urban Development
Mr. Russell Porter, California Department of Parks & Recreation

2

Dan Riss
22794 Woodridge Dr.
Hayward, California
94541

Mr. James P. Jaquet
Program Manager, Area C
Department of Housing and Urban Development
One Embarcadero Center, Suite 1600
San Francisco, California 94111

Dear Mr. Jaquet:

The following comments are perhaps in order in a consideration of the adequacy of the draft EIS for the Yerba Buena Center Urban renewal project:

1) re utilities: When fully developed, the project is estimated to generate an additional 3.19% of liquid waste (p46), an additional 5% of solid wastes (p47), and demand an additional 6.42% in electricity (p53), and 9.5% in water (p51). These figures are characterized as minimal. They are indeed small in relation to an abstract 100%, but this 100% is an entire city, and their smallness open to debate.

In regard to electricity, YBC will add a load equal to 6.42% of the entire city's demand. This is not an insignificant figure. This addition to the projected 1982 city demand presses even closer the existing capacity figures. What assurance is there that the system capacity can or will rise to accomodate increasing demand? There are other difficulties besides the problem of fuel that must be met before new plants can be constructed, or new generators added. Also, using the figures for full system capacity is misleading because the system, I believe, does not operate at full capacity, what with the need for preventive maintenance and shutdowns due to malfunctions.

The figures for water supply are also open to reevaluation. YBC will add 9.5% to the total city demand. That certainly is an enormous increase for one project, relative to the whole city. Also, the comparison of demand with reservoir capacity gives insufficient information. It would be helpful to know the average rate of input to the reservoir over the year compared to the average rate of withdrawal. Also the fluctuations in the actual amount of water in the reservoir for wet and dry years, including information on the expectation of supplies for very dry years.

2) re St. Patrick's Church (p66 and 72) Churches are also economic units and require income to help support themselves. Is there likely to be sufficient support from the new transient population to enable the church to continue to operate?

3) re urban design: The 1971 San Francisco Urban Design Plan in several places puts emphasis on the importance of the human scale of street facades. For example, objective 2 principle 3A and B, (p56): "Richly detailed facades enhance the character of the street by giving it greater visual varitey. Such detail ofter reduces building facades and textures to a more human scale and make the street a more pleasant place to be. Even blank walls may posses visual interest if they are textured and scaled." And objective 2, principle 5 (p58): "Preservation

Many of these figures were not stated in terms of total city percentage, but in terms of the facilities serving the project area; please refer to each section for clarification.

Correction made in text; current parishers are not expected to be displaced.

refer to p. 74

of San Francisco's strong and continuous downtown street facades will ensure maintenance of that area's distinctive character and spatial quality." YBC will not only create "a linear wall effect" (p64, EIS) along Fourth street, it is designed as an "introspective" project which deemphasizes the importance of the street. Instead of a street with human scale, interest, and variety, the YBC project will result in streets of inhuman sterility, street trees notwithstanding. Most of the streets around the Golden Gateway project are examples of this substitution of the block for the street as the basic element in city design.

*These questions
are considered
beyond the scope
of this report
and HUD's
responsibility*

4) re bonds: Portions of the project are to be financed by a bond issue of up to \$215-225 million with annual amortization costs of up to \$17 million. Questions that could be asked include: What might be the effect of one more public bond issue of the current bond market? What sorts of people or institutions commonly buy such issues, and thus, where will the interest payments go? What obligations and responsibilities exist for the project if the whole issue cannot be sold, or if it cannot be sold at 7% or less?

*The City has
obligated itself
to assume any
deficit.
refer to
p. 196*

5) renet annual fiscal impact (p174): What sort of adjustments are likely to be required in the city income and dispersal accounts in order to meet the expected deficits of 1978-1982? What obligations exist on the part of the city in case the net annual impact is negative for a longer period or for greater amounts than estimated? Should not a subsidy by any other name be called a subsidy?

*Text
amended;
refer to
pp. 78, 79*

6) re cultural places: Are "new and different cultural places" (p74) the same thing as an "increase (in) the amount of city wide cultural opportunities"? (p200) There are sports facilities, there are convention and exhibit facilities, and there are theaters already present in the city. How can facilities designed to compete with existing facilities be considered as "substantially increas(ing) the quality and variety of cultural activities"? And finally, the theater and sports arena could be considered as San Francisco oriented, but the hotel and convention facilities are focused toward transient and special needs, not to aid in the city's cultural activities. Statements in the EIS as to who will benefit could perhaps be modified.

*refer to
pp. 83, 84;
most housing
is completed*

7) re rehousing: How can the sonstruction of new housing and rehabilitation of other units be considered to mitigate relocation disruptions when the new housing or rehabilitated units will not, for the most part, be available to ~~tenants~~ until long after they have already been dislocated and settled in other places?

*A complete
cost-benefit
analysis would
be required to
determine
exact amount;
this is considered
beyond the scope
of this report.*

8) more on utilities: There are other costs attributable to the addition of these services. The treatment of the liquid wastes, I would imagine, has some costs attendant which would be proportional to the flow and YBC thus would be adding to the operating costs of the city. Similarly, with solid wastes, the addition of 5% to a load already considered a "difficult situation" is not insignificant and would, I believe, require a proportional increase in city outlays for this service.

I hope these comments can be of some use.

Sincerely,

Dan Riss

San Francisco Ecology Center
13 Columbus Avenue San Francisco, California 94111
(415) 391-6307

July 18, 1974

Mr. James P. Jacquet
Program Manager, Area C
HUD - Suite 1600
One Embarcadero Center
San Francisco, California 94111

Re: 9.1 PM - C/Addendum to
Our Letter of May 23, 1974

Dear Mr. Jacquet:

Since our letter of May 23, 1974, in which we pointed out the economic superiority of the Park Alternative, we have had time to develop another, more sophisticated comparative analysis between the Convention Center/Sports Arena Complex (Proposed Project) and the Park Alternative.

*refer to
pg. 212-
217*

The analysis is a discounted cash flow approach to present value. This technique is widely used throughout the business community and in some governmental agencies for evaluating alternative proposals.

The analysis establishes that the present value of the proposed Convention Center/Sports Arena Complex after 12 years of operation is a NEGATIVE \$86 million. The Park Alternative has a present value in the same time frame of a POSITIVE \$45 million. In other words, the taxpayers of San Francisco would objectively prefer the economics of the Park Alternative.

July 18, 1974

The analysis is based on the cash flows before debt service as found on pages 136 and 155 of your E.I.S. Our use of your projections does not signify our endorsement but simply is a convenient set of assumptions.

As we pointed out in our May 23, 1974, letter the prevailing interest rate for the proposed lease - revenue bonds has a critically important effect on the economic feasibility of the Convention Center/Sports Arena Complex. As reported in the July 10, 1974, Wall Street Journal, New York City voided the sale of municipal tax exempt bonds when the interest rate hit 7.923%. While San Francisco's rating will probably be higher than New York's, the current rate for Aaa rated bonds is between 6.75% and 7.25% and is continuing to rise. As reported in the July 12th, 1974, Wall Street Journal, the Aaa rated City of San Antonio, Texas, received a low bid of 7.18% and Aaa rated State of Oregon paid 6.8%.

*Refer to
pg. 198
and
214*

WE INSIST THAT THE E.I.S REFLECT A MORE REALISTIC 7% BOND COUPON IN THE ECONOMIC ANALYSIS. There is absolutely no justification for the utilization of a 6% coupon in the current or foreseeable market. The Accountants for the Public Interest (a non-profit accounting firm) in our May 23, 1974, letter pointed out the need for a more realistic interest rate. Events subsequent to that letter simply reinforce this need.

We are available to discuss our analysis with your staff.

Sincerely,

San Francisco Ecology Center

James M. Flack II *Elizabeth J. Flack*
by James M. Flack II/Elizabeth J. Flack
415-398-1211

Attachment

Discounted Cash Flow Analysis of

YBC PARK ALTERNATIVE

	Cash Flow*		7% Discount Factor		Present Value
1977	-\$17,000,000**	x	1.000	=	-\$17,000,000
1978	1,364,000	x	.935	=	1,275,340
1979	3,040,000	x	.873	=	2,653,920
1980	5,273,000	x	.816	=	4,302,768
1981	6,483,000	x	.763	=	4,946,529
1982	6,650,000	x	.713	=	4,741,450
1983	8,125,000	x	.666	=	5,411,250
1984	10,081,000	x	.623	=	6,280,463
1985	10,081,000	x	.582	=	5,867,142
1986	11,339,000	x	.544	=	6,168,416
1987	11,339,000	x	.508	=	5,760,212
1988	11,339,000	x	.475	=	5,386,025
1989	11,339,000	x	.444	=	5,034,516
1990	11,339,000	x	.415	=	<u>4,705,685</u>
<u>Net Present Value</u>					+\$45,533,716

*E.I.S. Table V, Page 136

Tax Increments available to finance Park Alternative less \$200,000 per annum for operating expenses.

**Ecology Center Letter of May 23, 1974, Page 3

Cost of Park Alternative expressed as negative cash flow.

Discounted Cash Flow Analysis of
YBC CONVENTION/SPORTS ARENA COMPLEX

	Cash Flow*		7% Discount Factor		Present Value
1977	-\$199,538,000	x	1.000	=	-\$199,538,000
1978	7,836,000	x	.935	=	7,326,660
1979	8,309,000	x	.873	=	7,253,757
1980	10,726,000	x	.816	=	8,752,416
1981	12,111,000	x	.763	=	9,240,693
1982	12,408,000	x	.713	=	8,846,904
1983	14,012,000	x	.666	=	9,331,992
1984	16,100,000	x	.623	=	10,030,300
1985	16,231,000	x	.582	=	9,446,442
1986	17,598,000	x	.544	=	9,573,312
1987	17,773,000	x	.508	=	9,028,684
1988	17,919,000	x	.475	=	8,511,525
1989	18,074,000	x	.444	=	8,024,856
1990	18,231,000	x	.415	=	<u>7,565,865</u>
<u>Net Present Value</u>					-\$86,604,594

*E.I.S. Table XIV, Page 155

Net Operating Revenue before
Debt Service.

**E.I.S. Table I, Page 129

Cost of Project expressed as negative
cash flow.

San Francisco Ecology Center
13 Columbus Avenue San Francisco, California 94111
(415) 391-6307

May 24, 1974

Mr. James P. Jaquet
Program Manager, Area C
HUD - Suite 1600
One Embarcadero Center
San Francisco, California 94111

RE: 9.1 PM-C

Dear Mr. Jaquet:

Enclosed are four copies of our comments with respect to the Draft Environmental Impact Statement on the Proposed Yerba Buena Center Project.

We would be happy to discuss these comments with any member of your staff or yourself.

Sincerely,



James M. Flack II
San Francisco Ecology Center
415-398-1211

Received:

4 copies

By: _____

Ann Hegel

Date: _____

5/24/74

San Francisco Ecology Center
13 Columbus Avenue San Francisco, California 94111
(415) 391-6307

May 23, 1974

Mr. James P. Jaquet
Program Manager, Area C
HUD - Suite 1600
One Embarcadero Center
San Francisco, California 94111

Re: 9.1 PM-C

Dear Mr. Jaquet:

Your Draft Environmental Impact Statement on the Proposed Yerba Buena Center Project (proposed Project) invited comments from citizens.

Our comments are:

I. The Draft E.I.S. states on page 183: "In most instances, the park alternative would reduce the adverse environmental impact of the proposed Project." However, the E.I.S. goes on to dismiss the Park Alternative on economic grounds. In effect, your report gives greater weight to economic considerations than to environmental considerations.

refer to pg. 213-217
We will demonstrate that the Park Alternative is, in fact, economically superior to the proposed Project. Therefore we expect that the Final E.I.S. will recommend the Park Alternative and discard the proposed Project as both economically and environmentally unacceptable.

II. The Draft E.I.S. does not investigate the economics of the Park Alternative. The E.I.S., in effect, assumes that the Park Alternative is economically inferior to the proposed Project. The attached letter from the

Accountants for the Public Interest recommends that: "A more detailed cost estimate of this alternative (the Park) should be provided by HUD."

The economic projections of the proposed Project as presented in the Draft E.I.S. are only "rough indicators" - approximations by your own admission (page 135, Draft E.I.S.). Had you developed "rough indicators" for the Park Alternative you would have discovered a vastly superior economic potential in the Park Alternative.

III. The economics of the proposed Project have changed significantly since your E.I.S. was released. Your figures utilize a 6% bond rate in determining the proposed Project's cumulative net fiscal impact on page 174 of the E.I.S. This shows the proposed Project making a positive cumulative impact in 1985.

The attached report from the Accountants for the Public Interest points out that utilizing a 6% interest rate for projections is questionable given the current interest rate market and inflation. If a more reasonable interest rate of 7% is used instead, the cumulative net fiscal impact would not be positive until 1990. In fact, from 1978 to 1990, the proposed Project's deficits will total \$32,500,000. This will have to be funded by the General Fund of San Francisco.

We think the proposed Project as presented in the Draft E.I.S. is economically unsound.

refer
to
p. 198
and
p. 214

IV. The economics of the Park Alternative are vastly superior to the proposed Project. The Park Alternative is to build a simple park on the 16 acres of land in the two blocks bounded by Mission, Folsom, Third, and Fourth Streets. (That portion of the block bounded by Market, Mission, Third, and Fourth Streets which is in the proposed Central Blocks Project will not be affected by the Park Alternative.) The Park Alternative envisions a simple open space with a minimum of improvements. Trees and grass will predominate. The estimated cost of these improvements is \$3 million or \$4.30 per square foot of park area. The cost of the 16 acres of land at \$20 per square foot is \$14 million. The total cost of the Park Alternative will be \$17 million. The annual debt service of \$17 million of bonds for 35 years at 7% interest is \$1,303,900 which together with about \$200,000 per year for maintenance equals \$1,500,000 per year required from the City's General Fund to buy and maintain the proposed Park Alternative.

The Park will not generate any direct revenues. However, the San Francisco Board of Supervisors has authorized the use of property tax increments from the Project land to be used towards the amortization of the bonds used in financing public areas of Yerba Buena Center. These incremental tax revenues will be at least equal to the Redevelopment Agency's estimate as presented on page 155 of the Draft E.I.S. A good case could be made that the incremental tax revenues generated by the Park Alternative will exceed the proposed project, but since the derivation of the tax incremental

ref to

pp 212-217

revenues for the proposed Project are completely unsupported in the Draft E.I.S., we use the conservative estimate that at least as much private development will be built around a 16 acre park as you claim will be built around a 16 acre sports and convention center. Value of property bordering New York City's Central Park and San Francisco's Golden Gateway Center serve as good examples of a park increasing the value of adjoining property.

Schedule A demonstrates the Cumulative Net Impact of the Park Alternative. Schedule B compares the Park Alternative with the proposed Project's net cumulative impact.



Schedule A

<u>Date</u>	<u>*Tax Increment</u>	<u>Debt Service & Operating Expense Park Alternative**</u>	<u>Net Revenue to City Gen. Fund</u>	<u>Cumulative Net Revenues to City General Fund</u>
1978	\$1,564,000	\$1,500,000	\$64,000	\$64,000
1979	3,240,000	"	1,740,000	1,804,000
1980	5,473,000	"	3,973,000	5,777,000
1981	6,683,000	"	5,183,000	10,960,000
1982	6,850,000	"	5,350,000	16,310,000
1983	8,325,000	"	6,825,000	23,135,000
1984	10,281,000	"	8,781,000	31,916,000
1985	10,281,000	"	8,781,000	40,697,000
1986	11,539,000	"	10,039,000	50,736,000
1987	"	"	"	60,775,000
1988	"	"	"	70,814,000
1989	"	"	"	80,853,000
1990	"	"	"	90,892,000

* Page 155 Draft E.I.S.

** \$1,303,900 annual bond debt service (\$17 million at 7% for 35 years)
196,100 estimates annual maintenance of facilities (5 men fulltime plus
 \$1,500,000 purchased services)

Schedule B

Comparison between the Net Cumulative Fiscal Impact of the Park Alternative and the Proposed Project. Figures below express the cumulative effect on the City of San Francisco's General Fund which is primarily funded by property taxes.

Date	Park Alternative* Cumulative Impact	Proposed Project** Cumulative Impact
1978	\$64,000	(\$4,900,000)
1979	1,804,000	(10,500,000)
1980	5,777,000	(14,700,000)
1981	10,960,000	(17,400,000)
1982	16,310,000	(19,800,000)
1983	23,135,000	(20,600,000)
1984	31,916,000	(19,200,000)
1985	40,697,000	(17,500,000)
1986	50,736,000	(14,300,000)
1987	60,775,000	(10,700,000)
1988	70,814,000	(6,800,000)
1989	80,853,000	(2,500,000)
1990	90,892,000	2,100,000

*Schedule A

**Accountants for the Public Interest, Letter 5/10/74 Attached (Schedule 2)

Schedules A and B demonstrate that the Park Alternative is a far superior economic plan from the taxpayer's point of view. Schedule B takes the figures presented for the proposed Project in the Draft E.I.S. and adjusts them to reflect a more realistic interest rate of 7% on the bond financing. If you are skeptical of this approach and wish to take your own figures as found on page 174 of the Draft E.I.S., the comparison is easily made. In the year 1984 the cumulative net effect of the proposed Project is a loss of \$3,500,000 while the comparable figure for the Park Alternative is a gain of \$31,916,000. By 1990 the proposed Project is \$31.6 million gain versus \$90.8 million gain for the Park.

If you wish further to consider the loss of non-cash credits necessary to pay for the \$28.7 million local share of the Project, then a sum of \$897,000 per annum may be deducted from the column labeled "Net Revenues to the City's General Fund" in Schedule A. This reduces the Park Alternative's contribution to the General Fund of San Francisco to \$79,231,000 in 1990 versus the proposed Project's \$2,100,000.

This \$897,000 was derived by utilizing the methodology used on page 169 of the Draft E.I.S. Some \$17.0 million of non-cash credits will be generated by the Park Alternative. The remaining local share required for the Yerba Buena Center Project is \$28,700,000. The short fall of (\$28.7 - \$17.0) \$11.7 million, if financed at 7% for 35 years, would be \$897,000 per year.

refer
to

P. 214

Clearly the economics of the Park Alternative are vastly superior to the proposed Project.

V. Our final comment: The San Francisco City Planning Department in its Recreation and Open Space Programs (July 1973) recommends the creation of a large park South of Market Street. We feel that HUD in reviewing the Park Alternative should be aware of this City policy.

VI. Summary. The Park Alternative is superior to the proposed Convention Center, Parking Garage, and Sports Arena Complex on both economic and environmental criteria. We hope you'll give the Park Alternative more consideration in your Final E.I.S. than you did in your Draft.

We would be happy to discuss these comments with any member of your staff.

Sincerely,

SAN FRANCISCO ECOLOGY CENTER

By: *JM Flack, II* *Elizabeth J. Flack*

James M. Flack II/Elizabeth J. Flack
415-398-1211

ACCOUNTANTS FOR THE PUBLIC INTEREST

(A NON-PROFIT CALIFORNIA CORPORATION)

351 CALIFORNIA STREET, 16TH FLOOR
SAN FRANCISCO, CALIFORNIA 94104
TELEPHONE (415) 956-3222

May 10, 1974

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San Francisco Ecology Center
13 Columbus Avenue
San Francisco, CA 94111

Gentlemen:

As you have requested in your letter dated January 31, 1974, we have reviewed the Yerba Buena Center Environmental Impact Statement Draft (the Statement), prepared by the Department of Housing and Urban Development (HUD) dated March 21, 1974. In 1972 we performed a study of the Yerba Buena Center in which we were critical of some of the methodology which was used to prepare the projections.¹ In the case of the HUD Statement, we believe that the methodology and presentation appear to be sound.

The weakness of the Statement involves the data available to formulate the projections. The most important data not available concern accurate national demand for convention facilities. HUD is aware of this lack of hard data, as evidenced by the following disclaimer in their report:

Numerous estimates have been made on the volume of activity projected for the Public Facilities in the Central Blocks area. These estimates have varied radically, due to the dearth of hard data available to substantiate these projections, and due also to the wide variety of assumptions which can be made.

To accurately project the actual activity in these facilities, it would be necessary to conduct an in-depth national study on the influences which effect convention and sports arena business, to establish trends for each of these influences, and then to apply these factors to San Francisco's proposed facilities. Such factors as the state of the economy; the relative desirability of San Francisco as a convention or sports center; the trends in air and automobile travel as a result of limited energy resources; and the trend on the part of conventioners nation-wide for more or less, larger or smaller conventions, all could potentially effect future convention business in San Francisco.

Adequate research in this area is not available,

and it is beyond the scope of this Statement to conduct such a study. Therefore, projections included here are based primarily upon the record of past and current convention activity in San Francisco, and a balancing of available economic analyses of the Project. The projections should be considered rough indicators rather than firm predictions.²

This data is of central importance due to its impact upon both the direct and indirect financial and economic benefits that are to be derived from the project. If there is a major overstatement in the projections of the number of conventions and conventioners that will be attracted to the Yerba Buena Center, there will be a decrease not only of direct revenues to the project but also of the indirect benefits that are to be derived from the project.

Our analysis indicates that without substantial reliable data concerning national demand for convention facilities, it is not possible to accurately project revenues or some elements of the indirect benefits. Such data is not available from any source.

Although we are not equipped to comment on the accuracy of the projected project costs, we feel that the estimated costs for the Yerba Buena Center must be carefully evaluated in light of the large cost overruns on other major public construction projects in this area.

Another matter of critical importance in our analysis concerns the interest rate that can be anticipated on a revenue bond issue to finance the project. HUD used an estimate of 6% as the interest rate on the bond issue.³ Since the date of that report, substantial changes have taken place in the bond market. All bond rate estimates that we have obtained exceed the 6% rate. To illustrate the sensitivity of the computations to variations in the interest rates, we are using a 7% rate as a possible interest rate on a bond issue to finance the project.

We have, therefore, revised two schedules⁴, using data provided by the report, to illustrate this possible increase in interest rates. Schedules 1 and 2 are the revised schedules.

Schedule 1 demonstrates the change that will take place in net direct project revenues if the bond interest rate is 7% and revenues are assumed to follow HUD's projections.⁵ The negative items in the Balance Column (those shown in brackets) are amounts that must be provided from general fund sources.⁶ The total deficit from 1978 to 1985 totals \$32.5 million. This amount must be provided under the project lease from General Fund Sources, unless some other source of financing becomes available.

Schedule 2 was constructed using HUD data modified only by the revised data from Schedule 1. We can see from comparing this schedule to the HUD table (Page 1974, the Statement) that the "cumulative impact" is extremely sensitive to the bond interest rate. Schedule 2 indicates that the "cumulative impact" will not be in a net benefit situation until 1990.

If the convention center and sports arena were not constructed, there is another possibility which should be considered. The future should provide more reliable data concerning the demand for convention facilities. In the future, existing excess convention-event capacity, such as Brooks Hall and the Cow Palace,

will be more fully utilized. It therefore would appear reasonable to defer the development of the public area to some later date.

One possible means of deferring the public areas of the project, but allowing the remainder of the project to go forward, would be to consider the alternate proposal for a park until some future date when more reliable data is available. It was not possible for us to quantify the costs of such a deferred use proposal. Some of the costs of the deferral would include the inflation factor in relation to future construction, possible loss of "local share" matching credit, and the costs of the initial conversion of the land to park use. The inflation factor cannot be reliably quantified with current data. The conversion cost of the land to park use would be minor in relation to the existing project costs. Land costs, as in the report, would be paid out of tax increments on the surrounding office buildings. A more detailed cost estimate of this alternative should be provided by HUD.

SUMMARY

To summarize, we have a situation of uncertainty concerning revenues and costs from the Yerba Buena Center. We have a change in an important factor, revenue bond interest rates. We have also attempted to measure the cumulative impact of a change of interest rate on the project bonds to 7%. We question whether the anticipated benefits are adequate to justify the required investment of \$30.6 million⁷ over the 13-year period.

Respectfully submitted,

ACCOUNTANTS FOR THE PUBLIC INTEREST

By:



Dick Van Aggelen

SCHEDULE 1
SUMMARY OF AMORTIZATION OF BONDS
(In Millions)

	<u>Amortization Cost</u> (Interest)	<u>Amortization Revenue*</u> (Direct Revenues)	<u>Balance</u>
1978	14.8	7.8	(7.0)
1979	16.0	8.3	(7.7)
1980	17.0	10.7	(6.3)
1981	17.0	12.1	(4.9)
1982	17.0	12.4	(4.6)
1983	17.0	14.0	(3.0)
1984	17.0	16.1	(.9)
1985	17.0	16.2	(.8)
1986	17.0	17.6	.6
1987	17.0	17.8	.8
1988	17.0	17.9	.9
1989	17.0	18.1	1.1
1990	17.0	18.2	1.2

*Amortization revenues are as stated in the report,
Page 156. Their use here does not indicate agreement
with their propriety.

SCHEDULE 2

YBC NET FISCAL IMPACT

(In Millions)

	<u>Economics Balance</u> (Indirect Economic Benefits)	<u>Amortization Fund Balance</u> (From Schedule 1)	<u>Net Annual Impact</u>	<u>Cumulative Impact</u>
1978	2.1	(7.0)	(4.9)	(4.9)
1979	2.1	(7.7)	(5.6)	(10.5)
1980	2.1	(6.3)	(4.2)	(14.7)
1981	2.2	(4.9)	(2.7)	(17.4)
1982	2.2	(4.6)	(2.4)	(19.8)
1983	2.2	(3.0)	(.8)	(20.6)
1984	2.3	(.9)	1.4	(19.2)
1985	2.5	(.8)	1.7	(17.5)
1986	2.6	.6	3.2	(14.3)
1987	2.8	.8	3.6	(10.7)
1988	3.0	.9	3.9	(6.8)
1989	3.2	1.1	4.3	(2.5)
1990	3.4	1.2	4.6	2.1

FOOTNOTES

- 1 Accountants for the Public, Report dated November 16, 1972.
- 2 Page 135, Yerba Buena Center Environmental Impact Statement Draft, dated March 21, 1974.
- 3 Page 156, Ibid.
- 4 Table XV, Page 156 and Table XXVI, Page 174 of the Statement.
- 5 See footnote on Schedule 1.
- 6 See Page 126 of the Statement concerning the Project Lease.
- 7 The required investment is assumed to be the total from Schedule 1, Balance Column, \$30.6 million. This amount is the net amount which must be derived from General Fund Sources unless other sources are found.

LEIGHTON M. BLEDSOE
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STANLEY JOHNSON
OF COUNSEL

HAND DELIVERED

May 10, 1974

Mrs. Mary Klute
United States Department of
Housing and Urban Development
One Embarcadero Center
San Francisco, California

Dear Mrs. Klute:

Enclosed is a copy of the comments which San Francisco Tomorrow submits to you, in response to the NEPA Environmental Impact Statement, prepared by HUD in connection with the Yerba Buena Center project in San Francisco. We stand prepared to discuss our comments with you, or your consultants at any time mutually convenient.

If you have any questions concerning the enclosure, or if you wish to have such meetings, please contact the writer.

Very truly yours,

Lawrence G. Lossing
clp

Lawrence G. Lossing

LGL/clp
Enclosure

SAN FRANCISCO COMMENTARY--HUD YBC FIS

MAY 10, 1974

HUD EIS RESPONSIBILITY

*refer to
p. iv.
The total project
has been assessed*

San Francisco Tomorrow believes that HUD has a greater responsibility than that stated on page iv of this EIS. We believe that it is practicable for HUD to reassess the basic course of action of this ill-conceived Yerba Buena Center project. Indeed, the environmental and economic consequences of this project are so adverse that to do less than a total reassessment would be irresponsible. Further, no major buildings have been built and most parcels have not been sold as yet--almost everything that has been done so far is just on paper and paper plans are not difficult to change. Nor do paper plans represent a major portion of the expected costs of the project.

*refer to
pp. 7-11*

SFT also believes that HUD must, as the Retroactivity paragraph directs, take account of environmental consequences not evaluated at the outset of this project. In addition, HUD must also take account of economic consequences not previously evaluated.

*Federal law
and regulations
do not require
that all adverse
impacts be
eliminated.*

Thus, HUD must do more than assess the impact of the proposed plan changes only and recommend steps that only minimize adverse impacts. HUD must reassess the entire plan, evaluate the environmental and economic impacts of the entire plan and recommend action sufficient to eliminate all of the adverse impacts.

SUMMARY: ADVERSE ECONOMIC AND ENVIRONMENTAL IMPACTS

Yerba Buena Center is both economically and environmentally unsound.

The economic result of this project will not be a net gain for the public, but a net loss. Major losses will come from the Convention Center and the Arena. Much smaller gains than are projected by the YBC proponents will come from the other income sources, especially the Center Garage and the tax increments expected to be generated by the project's many office buildings. The sum total will not be a net gain by the early 1980's, as suggested in this EIS but a net loss throughout the lifetime of the project.

As presently arranged, this loss will have to be met by public funds--that is, the public, who will benefit only tertiarily if at all, has to assume the total financial risk should this project show a loss. Despite this obligation--and despite the likelihood that losses will occur--the public has been given no opportunity to vote its willingness to support the proposed financing plan and assume the entire responsibility for any and all shortfalls.

By contrast, the prime beneficiaries (downtown hotels, restaurants, stores, property owners) have invested none of their own funds on a risk capital basis in this project and have no responsibility to cover the likely financial losses generated by this project.

The environmental results of this project include the following:

Massive traffic jams on already crowded streets in and around the project during peak commuting periods in the morning and afternoon.

Massive and frequent violations of air and noise pollution standards.

Massive use of power, especially from lighting, heating, air conditioning and elevating requirements.

These environmental failures are the direct result of poor economic planning. The need to obtain ± 65% of the financing from tax increments on new private construction and the need to offset the costs of an unnecessary Arena and money-losing Convention Center have resulted in a plan for massive Office development within the project. The total amount of Office space approaches 7,500,000 sq. ft.--an amount equal to almost 15 Transamerica buildings!

These Office buildings are the prime cause for the commuting traffic that will in turn cause the massive congestion, massive air pollution, and massive noise pollution. Only if these Office buildings are greatly reduced in number and size and if parking both in and around the project area is forbidden will these environmental violations not occur. The YBC plan not only calls for these Offices, it does nothing to eliminate parking facilities inside the project area and in areas adjacent.

SUMMARY: PROPOSED HUD ACTION

HUD must recommend a significantly revised physical and financial plan for Yerba Buena Center and must withhold its funds until such a revised plan is forthcoming.

Physical revisions:

refer to p. 225
The Arena, which has no guarantees of use by professional hockey and basketball teams and which will be a money-losing operation, must be eliminated from the project. This will save large amounts of construction funds and reduce the operating losses as well.

refer to p. 225
The Offices within the project area must be cut by at least 50%. Such a reduction will dramatically reduce vehicular traffic destined for the project, which will in turn reduce the peak hour congestion and the resultant air and noise pollution. This cut in Offices will also greatly reduce power consumption.

refer to p. 109/110 and the Parking Manager's statement prepared by the Chief Administrative Officer
Parking facilities within the project, especially those serving commuters, must be cut to the absolute minimum and preferably eliminated. In addition, parking facilities within a 3-block radius of the project boundary must not be allowed to increase in capacity and preferably be reduced. This will insure reduced congestion and reduced pollution.

refer to p. 225
Housing for the residents of this area must be given more land within the project so that the housing can be designed in a more humane way and so that vital social services can be provided close at hand.

refer to p. 225
Service industry (those businesses serving the downtown core) must be given area within the project rather than being displaced yet again to more and more remote areas of the city. No downtown core can function well without these vital services conveniently at hand. Such services also provide much-needed permanent jobs in the blue-collar field.

Financial revisions:

refer to p. 225
The cost of public construction must be reduced significantly. Elimination of the Arena is an example by which unneeded, money-losing parts of the project can go, thus reducing both public expense of construction and of covering operating losses.

refer
to p. 225

The expected prime beneficiaries of this project (downtown hotel, restaurant, store, parking, and property owners) must put up significant amounts of risk capital for the public improvements. If they expect to share in the benefits of such a project, they must also expect to share in the risks of building such a project.

Following the above-mentioned physical and financial revisions to the plan, an independent source should be employed to make an honest assessment of the entire financial prospects of the project for the PUBLIC, not the special interests. If the assessment shows a net gain, then the project should be put to a public vote to proceed with the project as revised. If the assessment shows a net loss, then the prime beneficiaries must put up guarantees to cover the majority of the expected loss. Only if such guarantees are forthcoming should the project then go to the public for approval as revised.

San Francisco Tomorrow and its representatives are ready to work with HUD, the Redevelopment Agency, and downtown interests on the revised plan as described above. There can be a Yerba Buena Center but it must place the interests of the public above those of Downtown.

The following sections deal with the findings of the HUD EIS on a more detailed basis.

TRAFFIC

We regret that we must say that we find this section to be inadequate and incomplete.

This section should include the following information with accompanying maps and charts:

refer to
pp. 104
and 110, 111

- Existing street capacity in and around YBC at peak hours
- Existing vehicular counts on these streets at peak hours
- Future vehicular counts at peak hours with the proposed plan (no controls over parking within and adjacent to the project)
- Future vehicular counts at peak hours with the proposed plan (with full controls)

Such information would clearly show that WITH THE YBC PROJECT AS PROPOSED THE LOCAL STREET SYSTEM WILL FAIL TO FUNCTION! The local streets, already close to or at capacity, will be inundated with additional vehicles--some 15,000 additional--at the peak periods. There is no way the local streets and freeway ramps can absorb this over 50% increase in traffic without breaking down.

refer to
pp. 112,
113

This section of the EIS attempts to say that if such breakdowns occur, the public will find other means of getting to work. However, Peninsula residents who will make up 1/3 of the total employees of YBC are already using their transit systems to capacity with no increase in capacity in sight--rather, the railroad is trying to reduce its service. How are these people to arrive at YBC then?

refer to
pp.
109,
110

Further, the city has no policy to discourage automobile commuting to this part of the downtown. Quite the contrary, it is city policy to ENCOURAGE such traffic by building a parking belt immediately adjacent to this YBC project! A likely result is more traffic, more congestion, more pollution, and increased pressures for more freeways, ramps and one-way streets-- which will in turn further aggravate the traffic and pollution problems.

refer to
pp.
111 -
113

This section of the EIS also fails to provide information on existing peak hour capacity of the transit systems serving YBC. Most of the systems listed do not specify the existing capacity at peak periods, the existing demand at these peaks, and the total future demand with YBC demand added in so that we all can see clearly whether the systems have any chance of working if this project is built. Further, there is no consideration of whether the stations of BARTD and the MUNI METRO systems that serve this project can serve the maximum train capacities that this project on top of the other downtown projects will cause at peak periods.

AIR QUALITY

We regret that we must say that we find this section of the EIS to be inadequate and inaccurate.

This section should include the following information with accompanying maps and charts:

refer to
pp. 144, 145

Allowable levels of air pollution for the several kinds of pollution
On the same chart, existing levels of pollution for the several kinds
On the same chart, future levels of pollution for the several kinds
with the YBC project AS PLANNED added in.

refer to
pp. 111 -
113

We say AS PLANNED because this section of the EIS makes the assumption-- totally unwarranted--that the parking facilities both within and adjacent will be reduced or prohibited with resulting reductions in vehicular traffic and air pollution. As we have just read in the previous part of this SFT commentary, city policy is just the reverse; parking is to be encouraged rather than prohibited! The EIS cannot assume the "best case" for analysis; it must show the "worst case"--especially when there is little or no grounds for the "best case".

In this regard, the Table VIII is totally misleading. It is labelled as being the "maximum", or worst case, in its measurements of air pollution caused by this project. In fact, it measures the best case--assuming the parking is reduced and prohibited--and is thus the "minimum" pollution that can be expected.

Even with this minimum measurement, it is apparent that 3 of the 5 kinds of air pollution far exceed the legally allowable maximums. With the measurements of the project AS PLANNED calculated, we are confident that ALL of the kinds of air pollution would exceed these maximums.

Worst case
situation is
the Central
Plaza which
is not
signifi-

May we also point out that the totals for ambient air pollution include only the garage contribution made by the Central Block garages and not those garages that occur with the office buildings in the remainder of the YBC project area. This addition would, of course, make the measurements even more untenable.

can't be impacted
by other
parking areas;
peripheral parking
will be kept to a
minimum

HUD must have this EIS section done over and done accurately.

NOISE

We regret to say that we find this section of this EIS to be inadequate and inaccurate.

This section should include the following information with accompanying charts:

*refer to
Noise section
and appendices;
there are too many
varying regulations
and readings to
simplify
all the infor-
mation on
one chart.*

Allowable levels of noise for the several land uses

On the same chart, existing levels of noise at the locations of the land uses

On the same chart, future levels of noise at the locations of the land uses with the effect of the YBC project AS PLANNED added in.

We say AS PLANNED because here, as in the EIS air quality section, the EIS makes the totally unwarranted assumption that the parking facilities will be controlled, traffic will thus be reduced, and the noise levels thus be reduced as well. We have read previously that this assumption cannot be made because city policy on parking in this area is to encourage such parking. The EIS must, to be accurate, compute the worst case and compare it to the allowable maximums. This EIS measures the best case, based on an foundation-less assumption, treats it like the worst case, and fails to measure and compare the worst --and likely-- case with the allowables.

Even with the best case being measured, the noise levels exceed ALL of the allowable maximums for ALL land uses! If the worst case (the project AS PLANNED added in) were truly used, the noise levels would go right off the chart.

When making comparisons with the allowable levels, the EIS should also show not only the decible (db) difference but also the percentage (%) difference. Most people do not know that the db ratings are not an arithmetic scale and thus assume that an increase of 3 db is equivalent to an increase of 3 %--quite an erroneous reading. For the true picture on noise, this EIS must also show percentages.

HUD must have this EIS section also done over and done accurately.

ECONOMICS

We regret to say that we must find this section of the EIS incomplete and inaccurate.

We hereby include the attached study "A CRITIQUE OF SECTIONS A AND C OF ARTHUR D. LITTLE'S AND URS RESEARCH COMPANY'S ENVIRONMENTAL IMPACT REPORT ON YERBA BUENA CENTER AND A RECOMPUTATION OF THE PROJECT'S IMPACT" by Rosenstein and Fulton, as a part of this SFT commentary. Although it is in response to the city's EIR for this project and not a direct critique of the HUD EIS, its rebuttal projections are directly applicable. Indeed, we find the Rosenstein-Fulton projections to be the most rational and realistic yet developed for this project. We recommend them to HUD's use.

*This report
was consulted
in conjunction
with other
studies on the
project; certain
elements were
found valid, others invalid*

The HUD projection for Convention Center use is just not applicable. As the attached study accurately points out, the past trends in this field in San Francisco have not been following some imaginary upward paper curve, but have been levelling off--topping out, if you will. Thus, we find any projection of limitless growth in convention visitors to be unwarranted if based on curves on charts.

*refer to
161-165*

Statistics are not available on the factors that influence the overall growth of convention business

It can also be argued that an increase in convention delegates and the increased crowding and congestion accompanying such an increase will have the effect of reducing the number of other visitors to the city, thus sharply reducing the positive economic impact claimed for the YBC project. A survey of visitors has indicated that visitors already find congestion and noise to be major deterrents to return visits on their part.

Further, it can be argued that the Facilities Use Tax will reduce the attendance figures used in the HUD EIS for the Convention Center.

In short, we believe that there is no way that the Convention Center can make money for the project--no other major center operates in the black--and that its overall economic value to the public as a whole is overrated.

Correction made; refer to pp. 167-172

The Arena is listed as having 150 use-days. But without a hockey team and a basketball team under contract, this can't possibly be the case! First, we believe that even with such teams, the maximum use-days would total 135, which squares with the experience of other comparable arenas. Then, to accurately reflect the local situation, the home dates of these currently hypothetical teams must be subtracted from that total. Since the home dates would total 80 for the two teams, this calculation would result in a total of 55 likely use-days for the YBC Arena.

Corrections made

Not only will this major correction in use-days affect the revenues for ticket sales that are projected in the EIS, it also will affect other projected revenues as well. With no teams, revenues from concessions, television, advertising, increased hotel usage, and increased sales of meals will have to be either completely discarded or greatly reduced.

Further, the Arena is projected as drawing more attendance/event than the Oakland Coliseum--much more. The main justification is that its location will be more convenient. But the Oakland facility is also on the BART line and has excellent freeway access. Only San Francisco hotel guests would find it more convenient and these will only total 1% of the total expected attendance. Also, the adverse effect on ticket sales of the very high Facilities Use Tax is not taken into account in the EIS estimate of likely attendance.

In truth, there is no way the Arena can even begin to approach the revenues claimed for it in this EIS. To the contrary, the Arena will be a major money loser.

Less office construction would also reduce the environmental impacts; it was necessary to select one assumption and employ it consistently.

This EIS goes along with the Redevelopment Agency projection for this project that it will capture 80% of the city's Office market for the next decade. It appears that, with the current office construction now under way or in the design stages for locations along lower Market Street and along Van Ness this projection is already faulty. Add to this the consideration that many people in the field believe that we are now seeing a surplus of office space in the city and we wonder, seriously, about the accuracy of the Agency projection for office demand in YBC. Less demand would mean fewer buildings on a more extended schedule which would in turn reduce the expected tax increments that are supposed to finance the major part of this project.

A formal cost-benefit calculation is neither necessary nor appropriate for this project.

In calculating the economic impact of this project, it is necessary to consider the costs as well as the revenues. Some significant costs are not included in this EIS. We believe the costs for additional services that can be attributed to YBC such as fire protection, police protection, waste handling, street maintenance, and transit system maintenance must be part of the cost-benefit calculation. Also counted on the debit side should be the various lawsuits that are sure to be brought over violations of the noise and air pollution standards.

Environmental costs and economic benefits have been fully discussed and balanced.

This represents 6 years from the start of amortization

Even with all of the favorable assumptions about YBC economics made in this EIS, the project is in the red through 1984--10 years in the future! May we suggest that this projection of the first ten years is likely to be the projection for the second ten years as well? The EIS prediction of profits in the very distant future are fraught with uncertainty and, in fact, depend on every possible plus factor coming true--a situation that rarely occurs in real life.

A national search was conducted to secure such information; however it is not available from any source.

HUD must recalculate this EIS economics section in light of the points made herein and in the attached study. HUD must also conduct an in-depth review of the convention business. The convention business question is at the heart of the YBC project. HUD is a financial partner in the project. How can a partner, especially one acting on behalf of the public with public funds, not investigate the main reason for the project in which it is investing? Failure to conduct such a review would surely seem to be irresponsible.

SOCIAL SERVICES

We regret that we find this section of this EIS to be inadequate and inaccurate.

Corrections made; refer to pp. 87-88

Neither South Park nor the Embarcadero qualify as recreational facilities that would serve the project's residents. To call them such is really just a cruel joke. We recommend that the authors of this section actually visit these two places before putting them in this list.

refer to pp. 87-88

The housing project services are unspecified. We suspect that they do not amount to very much.

Many of the services listed are to be removed from the area, according to the YBC plan. How can they be listed as being available, then, to the residents of the area?

The truth is that social services are woefully inadequate and this EIS must say so if it is to be anywhere approaching accuracy. Further, HUD must not lend its continued financial support to this project until these services are improved and included in the YBC plans.

LAND USE

Reference deleted in text

This EIS section has several shortcomings. First, the prospect of YBC was not, as stated in the EIS, the main factor in the recent spate of hotel construction in the city. At the time the new hotels were planned, city hotel occupancy rates were exceeding 85% in an industry where 65% is a break-even point. Everyone wanted to get in on the action. If YBC came through, so much the better--but the very conservative men who invest in hotels don't depend on possible events, they go only for sure things. And coming into an area with an 85% occupancy rate was just that--a sure thing. Now it may be true that some of the new hotels are experiencing low occupancies, but this is not because YBC isn't built, it is because too many hotelmen tried to cash in on the S. F. market at the same time. They knew the risk. In our free enterprise system, why should the public be called upon to bail them out?

refer to p. 62

The EIS must not let several of the Agency policy statements listed in this section pass without comment. When the Agency says that YBC will relieve the pressure for building offices elsewhere, this EIS must point out that this is not necessarily so. Frequently, when a project like this goes into one part of the city, land values in the area next to the project increase to the point where many developers find them unattractive. In seeking better

land values, many developers look instead at the areas away from the project area which have since stabilized or even decreased in value due to the effect of the project's having shifted interest to another part of town. The developers of the Transamerica Building used this very technique when the city's Urban Design Plan shifted interest from Jackson Square to Market Street by calling for greater building envelopes along and near Market. Taking advantage of plan loopholes and lower land prices, the T-A people built their tower not on Market in the supposed new direction of growth but at the fringe of the old growth area.

references
deleted in
text;
remaining
references
are quotations
of City goals
not project
accomplish-
ments

When the Agency says that the intensity of land use will be less in YBC, this EIS must point out that the equivalent of 15 Transamerica buildings in offices alone plus a hotel plus a convention center plus an arena plus an apparel mart plus several major parking garages makes that claim highly dubious.

When the Agency says that the traffic pressure on downtown will be relieved by placing YBC nearer the main freeway ramps, this EIS must say that any development that is going to have 35,000 additional workers and 15,000 more vehicles is only going to increase traffic pressures on downtown no matter where in downtown it is located.

HUD must give this section of the EIS more vigorous and deeper thought. It cannot just repeat the claims of the Agency, claims which upon closer investigation do not hold water.

This "alternative"
would not affect
any environmental
impacts of the
project, and
this is
not
an appropriate
for an EIS. The
economic balance
has been
considered. It
the local govern-

ALTERNATES

This EIS section omits the most obvious alternate of all--a revised financing plan that SHARES the risk and costs between the prime beneficiaries and the public and a plan that does without the obvious unneeded and money-losing parts of the YBC proposal. The outlines of such an alternate were discussed earlier under "SUMMARY: PROPOSED HUD ACTION". SFT is ready to go into more detail with HUD on this alternative. ^{the balance between environment and economics} If the government wished to change the financing plan, then HUD would consider how such a change might affect the balance between environment and economics. With regard to alternatives that are considered in the EIS we would like to make the following comments.

Reference to
nothing deleted

We feel that objections raised to the "New Town" alternate are invalid. The EIS argues that this option is deficient because it doesn't fit the existing zoning. But the zoning was designed to conform to the YBC idea in the first place! To say that a new option doesn't fit the specially designed zoning violates several rules of logic.

The objectives
have received
all legal approvals
of administrative
and elected
officials.

It is also stated that this option doesn't the major objectives of YBC. This is also no argument because 1) the YBC plan itself doesn't meet its own objectives, as we have seen in the commentary above and 2) some of the objectives of the YBC plan are in themselves objectionable and the whole point of this option is to provide more satisfactory objectives and results.

refer to
p. 225

The HUD option of producing parking within the project and controlling parking outside the project is a step in the right direction but it doesn't get at the root cause of the problem--the 7,500,000 sq. ft. of office space that causes the parking demand. To get at this problem, we again recommend adoption of the SFT alternative discussed previously.

HUD must, along with the Agency, realize that the current YBC plan just isn't going to work either environmentally or economically and that a significantly different plan that does is going to have to be considered.

LIQUID DOMESTIC WASTES

refer to p. 42
HUD must ask and answer the question of whether HUD and/or the Agency can knowingly contribute to an existing sub-standard or illegal situation such as the one that exists in San Francisco with regard to non-treatment of its liquid domestic wastes.

ELECTRICITY

refer to p. 59, 60 and Appendix I.
Throughout this EIS section there is no mention of energy conservation concerns or measures. At a time in our national history when over-consumption of natural resources, especially fuels and power sources, we find this kind of omission almost impossible to believe. The EIS must do more than say that the future supply of this fuel and that power source is unknown. HUD is the federal agency involved here; it is HUD's business to know these things or, if it doesn't know, to find out! HUD must also consider and make recommendations for energy-conserving measures to be taken in the construction and operation of the YBC project.

The HUD EIS will be inadequate and incomplete until these major pieces of information are part of the EIS.

LITIGATION

The information included in the EIS on the San Francisco vs. Romney suit is incomplete and misleading. It is, perhaps, understandable that HUD wishes to put the most favorable light on its side of the argument. But an EIS is supposed to inform the public, not serve as a legal brief for one side of the case. We believe the following information should be in the body of the EIS.

refer to Appendix E
San Francisco Tomorrow was found to have standing in this matter by the courts.

subjective
In a almost identical suit in Boston, Jones vs. Lynn, the First Circuit Court of Appeals directly rejected the Ninth Circuit's opinion in San Francisco vs. Romney. In so doing, the First Circuit created a clear division between the Federal Circuit Court's on the same legal and factual situation, thus lending considerable weight to the SFT side of the case. It is clear that had we decided to take our case to the Supreme Court, it would have been heard and we would have had an excellent chance of winning.

During the litigation, the Council of Environmental Quality was working on new guidelines for the preparation of EIS's. The new guidelines reinforce the opinion and legal holdings of Jones vs. Lynn (the pro-conservation finding) and weaken the SFT vs. Romney (the anti-conservation finding) interpretation.

refer to p. iv for explanation of HUD determination
It was in light of these facts as well as the YBC housing plan changes that HUD was compelled to produce an EIS for this project. Since a HUD EIS was the object of the SFT suit, SFT did not have to take its case to the Supreme Court for confirmation.

In order that the public has the complete story of this suit, we believe that the above information should be included in the body of the EIS and not buried in the addenda to this document.

refer to
p. 32
and
Appendix
E.

The information included in the EIS on the Duskin and Williams suits is very sketchy and far from complete. These suits go right to the heart of the economic problems of the project and deserve complete summaries of the arguments advanced to date on both sides. After all, the project may not proceed until these suits are resolved and then only if the courts find in favor of the City and Agency. Until this information is apart of the EIS, this EIS will be incomplete.

refer
to p. 31

Also, for accuracy's sake, the EIS must point out that TOOR is now supporting the YBC project because it is a condition of the agreement it reached with the Agency, the same agreement that is providing them with the additional housing that they so rightly sought.

CONCLUSION

This EIS, while an improvement over the locally produced EIR, still contains many shortcomings. We must ask HUD to diligently make this EIS adequate, accurate, and complete. We must also ask HUD to consider seriously the alternate that we have suggested in this commentary. Finally, we must ask HUD to withhold further funds from this project until its many adverse environmental and economic effects are eliminated.

100-8107

Rm. 34
728 Montgomery Street
San Francisco, Ca 94111
June 17, 1974

Mr. James Price
HUD
450 Golden Gate
San Francisco, Ca 94102

Re: Comments on Yerba Buena - Environmental Impact Statement.

Dear Sir:

It appears that with or without the help of HUD a number of cities across the country - and perhaps throughout the world - are gearing up to become prime convention centers of the future.

This study is considered beyond the scope of this report; however, a native wide search for existing data was made
HUD cannot permit a vast overbuilding of convention centers in projects - at the very least they are heavily involved in. I would like to see a survey of the 50 major resorts and cities across the country and Hawaii and Caribbean with capacity and planned development for convention business measured against the future for conventions which may vary from decline to stay-even to some growth.

Prominent federal officials concerned with energy shortages suggested this past winter that conventions may well have reached a peak - that as a practical conservation matter or the face of shortages conventions will decline. Another theme of the federal administration is that if there is to be growth in energy use - it must be restricted to a maximum 2 to 3% a year. Convention and travel industries must face realistically the fact this is a goal just as applicable to them.

refer to p. 23; the hall can be subdivided to have more than one convention at a time
Additionally, the average convention is composed of 1500 persons - it is a dangerous, cyclical and expensive business to build up a 'plant' to handle the occasional elephantine convention. Such facilities are already available at Miami, New York, Chicago, Hawaii and perhaps elsewhere - what is the effect on these communities of HUD's promotion of convention centers at San Francisco which will directly compete. Are HUD's and local community investments then endangered?

These are easily obtainable facts, which can help make sense out of the way the Federal government spends our money.

refer to pg 212-214
In regard to Yerba Buena, it should be noted that some physicians aver that the population of the Bay Area is already beyond a desirable maximum. San Francisco does not meet the standards of the Clean Air Act - we are one of the worst polluters of any waterway in the State. It is time to give the most serious study to creating of Yerba Buena a major downtown park - with housing on its periphery. I believe the economics are in favor of the park. Yerba Buena would be another step toward bankruptcy - as presently planned.

Sincerely,

S. M. Smith

S. M. Smith

GERALD A. WRIGHT
650 CALIFORNIA STREET
SAN FRANCISCO, CALIFORNIA 94108

June 3, 1974

Mr. James Jaquet
Program Manager
Area C, Operations Division
U.S. Department of Housing and
Urban Development
One Embarcadero Center, Suite 1600
San Francisco, California 94111

Re: Draft Environmental Impact
Statement, Yerba Buena Center

Dear Mr. Jaquet:

I note from this morning's Chronicle that I have been identified as favoring development of some kind of sports complex or highrise commercial/residential development for the Yerba Buena project area. I hope you have not misconstrued the thrust of my letter of May 13, 1974, dealing with that subject.

Solely for the sake of argument, I suggested in my earlier letter that the proposed convention center be compared with other possible means of developing the property, and I casually mentioned a few. However, I did not mean to ascribe any real significance to any of the alternatives, and I have not made any attempt to ascertain what use of the property may be most desirable. In short, I do not favor any development of the property as opposed to any other development.

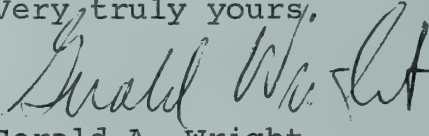
I do, though, suggest that whatever development is undertaken be based on a reasonable economic evaluation of that development's costs and benefits. I have not yet seen such an analysis of the proposed Yerba Buena project. I have seen analyses which attempt to justify, but none which

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manage to explain. Why a convention center instead of a pickle factory? And whatever is built, why should the taxpayers pay for all or any portion of it? I am not sure that it is HUD's responsibility to provide answers to these questions, but I know that HUD does not fulfill whatever responsibility it has by issuing a misleading economic analysis.

In reviewing my letter of May 13, 1974, I feel that I may have been unduly critical of HUD's efforts, for which I apologize. I am certainly aware of my own limitations, which is one reason why I do not want to be in the position of recommending a different sort of development for the Yerba Buena Center. I know that your staff is doing the best job that it can, and I would be glad to give any assistance that you would find useful. I am not convinced, as I hope HUD is not, that sale of the Yerba Buena land to the highest bidders would result in a less beneficial result for San Franciscans than construction of the proposed convention center. Having that in mind, there is no reason why HUD should be in the position of trying to justify the only project that the Redevelopment Agency seems to be able to generate. San Francisco has been built and rebuilt several times without the help of a Redevelopment Agency, and the results have not been all that bad.

Very truly yours,


Gerald A. Wright

GAW:slp

GERALD A. WRIGHT
650 CALIFORNIA STREET
SAN FRANCISCO, CALIFORNIA 94108

May 13, 1974

Mr. James Jaquet
Program Manager
Area C, Operations Division
U.S. Department of Housing and
Urban Development
One Embarcadero Center, Suite 1600
San Francisco, California 94111

Re: Draft Environmental Impact
Statement, Yerba Buena Center

Dear Mr. Jaquet:

The purpose of this letter is to set forth a few comments concerning the draft environmental impact statement for the Yerba Buena Center. My comments are directed solely at that portion of the draft report dealing with the economics and financing of the project. It may be of some assistance to you, in evaluating my comments, to know that: I am a practicing attorney; in 1962 I was graduated from Harvard College where I majored in economics; in 1969, I was graduated from the Stanford School of Law and received a graduate degree in economics from Stanford University. At one time I was engaged in the business of economic consulting and city planning. My comments about the economics and financing of the Yerba Buena Project relate to several general matters dealt with in the report--I will not attempt to quarrel with your statistics.

A cost-benefit ratio has not been formally computed. Such an exercise is not appropriate or useful for a project such as YBC.

One would think that, in analyzing the economics of a project such as the Yerba Buena Center, some sort of cost-benefit approach would be utilized. It is insufficient merely to determine that a project can or cannot be paid for; the more significant question is whether it ought to be paid for, whether the real costs of the project will exceed the identifiable benefits. Your approach does not even attempt to make such an analysis,

There has been a full discussion and consideration of the costs and benefits of the project as well as a balancing of them. The conclusion of this balance is stated in the impact description sections, the alternatives sections, and the recommended HUD action section.

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although an unsophisticated reader might not appreciate that fact.

Correction made in text to "Amortization Revenues"

In Table XIV, on page 155 of your draft report, you present what is represented to be a "summary of direct revenues" of the project. To the uninitiated, that suggests that Table XIV identifies the very real, indeed "direct," financial benefits resulting from the construction of the Yerba Buena Center public facilities. But, of course, Table XIV does not do that at all. Rather, Table XIV simply identifies sources of funds that may be used to pay for the project. For example, the San Francisco hotel tax is not a revenue of the Yerba Buena Center; it is simply a source of tax dollars which the San Francisco Board of Supervisors has kindly allocated to the project. The hotel tax will be collected whether or not the Yerba Buena Center is built. If the Board of Supervisors were to allocate dog license fees to the project, would you consider that a "direct revenue" of the Yerba Buena Center? It is, sir, not a responsible act for you to identify the hotel tax as a "direct revenue" of the project.

Correction made

It is also improper to claim that as much as \$11,539,000 in tax increments constitutes revenue from the Yerba Buena Center public facilities. As you describe in paragraph (b), on page 135 of your draft report, these tax increments represent increased property taxes, over the amount that would be paid at the 1965 assessed valuations, paid on peripheral parcels in the Yerba Buena project. Now I ask you, if the Yerba Buena Center public facilities are not constructed, what do you suppose will happen to those peripheral parcels? Do you imagine that they will lie fallow, be returned to the Indians, or otherwise be useless and taxfree? Indeed they will not.

Let us imagine that the central block portion of the Yerba Buena redevelopment project was devoted to any of the following uses: (i) public park, including participant sport facilities, lagoon, open air bandstand, and other amenities, at a total cost of \$15 million; (ii) mixed commercial and high rise upper income housing, in the manner of the

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Golden Gateway; (iii) whatever might be constructed on the property by the highest bidders therefor. In any of these instances, would you expect that the tax increments on the peripheral parcels, once they were developed, would be any less than those shown on your Table V on page 136? If not, then it is misleading to state that the tax increments are "revenues" impliedly attributable to the construction of proposed "public facilities," which are not public at all. Parenthetically, I suggest that any facility that persons can enter only upon payment of a fee, such as a sports arena or parking garage, is not "public" in any sense. A library is public; a park is public; a professional basketball game is not.

"Public"
as used
in the
sense of
facilities
which
public funds.

In sum, you should at least make an effort to determine what portion of the tax increments, if any, would be attributable to the fact that the proposed public facilities are constructed, as opposed to some alternate development of the property.

Perhaps a more serious, overriding problem with the use of tax increments in your calculations is the fact that these sums may not be available at all. Contrary to the statement in paragraph (b) on page 135 of your draft report, it is not the Board of Supervisors that authorizes the use of property tax increments to amortize bonds. Article XIII, Section 19, of the California Constitution and Section 33670 of the California Health and Safety Code provide that a redevelopment plan may contain a provision allocating tax increments to be "paid into a special fund of the redevelopment agency to pay the principal of an interest on . . . indebtedness" incurred by the agency to finance the project. It is the Redevelopment Agency that determines whether tax increments will be used to amortize the Agency's bonds, and the tax increments may only be used for that purpose. However, Section 2.4 of the Financing Agreement, entered into between the City and County of San Francisco and the Redevelopment Agency for the construction of the public facilities, states, in part, that the Agency will "enter into a repayment agreement with the City providing for payment to the City of [tax increments] to offset lease rental payments by the City." In other words, the Agency

proposes to pay the tax increments to the City, rather than to the holders of the Agency's bonds as payments of principal and interest. This the Agency may not do. Therefore, tax increments are very likely not going to be available to the City and County, except to the extent that the City and County shares in property taxes generally.

refer to p. 32 and pp 148, 149 and App. dix E

I find it astonishing that your draft report does not focus to any degree on the nature of the financing arrangement for the public facilities. On page 126, you blandly observe that, "The Agency will lease the public sites and completed public facilities to the City at a rent sufficient to amortize the bonds." In other words, without regard to whether the City has any use for, or desire to, occupy the public facilities, the City intends to pay an amount of "rent" to the Agency that will be the amount required to make the bond amortization payments. Although intricacies of leasehold arrangements may sometimes be obscure to a non-lawyer, I should think that even a layman would recognize that this scheme for financing the public facilities represents a very curious lease indeed. It should be recognized, and made explicit in your final report, that the sole reason for this arrangement is that voter approval would be required if the City were to sell bonds directly and use the proceeds to construct the public facilities. The Agency and its lawyers apparently feel that the Agency may sell bonds, the City may make bond amortization payments under the guise of "rent," and that voter approval will not then be required. The most regrettable feature of this arrangement is that general obligation bonds--those that receive voter approval--sell at an interest rate of at least 1/2% below the interest rate that the Agency's proposed bonds would carry. The figures contained in your Table II, on page 131, suggest that the higher interest rate will result in an additional \$40 million, or so, in interest paid over the life of the bonds. All this because the public agencies involved dare not seek voter approval.

The most serious concern I have about the economic portion of your report is the implied assumption of your analyst that "San Francisco" is a meaningful economic entity. Thus you state on page

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*It is
difficult to
separate the
economic
health of
a City, its
residents,
and its
services.*

137 of your report that, "To maintain its economic vitality, San Francisco needs economic activities to draw income from outside the Bay Area and the City" (emphasis added). Who is this "it"? San Francisco consists of a few square miles of land located on the western edge of the North American continent, on which a number of people have chosen to live or work, or both. San Francisco does not have an income; its residents have incomes. San Francisco does not "need" any economic activity at all. Perhaps people who live in San Francisco require a source of income, but so far as I know it has never been established that it is the responsibility of local taxpayers to create work for people who cannot find it. Who cares how much construction employment is generated by the Yerba Buena Center (cf. your Table XXV)? By the way, two hundred twenty-five million dollars spent on anything will generate employment for someone, and so the Yerba Buena construction employment is nothing special.

*Convention
business is
one source
of attracting
income to
the area*

On page 137 of your draft report you suggest that there is something economically unsound about a decline in manufacturing employment, accompanied by a much greater increase in total employment, in San Francisco. You state that manufacturing is an export industry while service businesses are not, and that a replacement for lost manufacturing must be found. (Interestingly, a substantial portion of the decline in manufacturing employment is probably related to the fact that the Redevelopment Agency has destroyed a large portion of the City south of Market Street.) You are confused if you think that the banking and insurance businesses do not attract foreign funds. So, I suppose, do conventions, but the convention business also generates a number of other predictable economic effects that are not shared by more pedestrian enterprises. These include: (1) substantial dependence on the continued availability of cheap long range transportation, while energy problems indicate that the continued supply of petroleum products at a modest price is doubtful; (2) a local transportation system that can move large numbers of people about efficiently (with local transportation systems highly subsidized by the

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taxpayers, this means even more of a tax burden); (3) substantial economic dependence on an industry that is highly sensitive to small fluctuations in general economic conditions; (4) continued lax enforcement of the income tax laws vis-a-vis expense-account living. No competent economist who set about to design an economic base for a community would start with the convention trade.

There are a number of other questions that can intelligently be raised about the economic portion of your draft report. While it is apparent that you have overstated the financial benefits resulting from the construction of public facilities, it is even more apparent that you have neglected to estimate the full costs to the City from the project. Large amounts of construction do not occur without substantially increasing the burden on municipal services. Fire protection, sewage disposal and other sanitation requirements, municipal transit, additional police protection for a convention center and nighttime sporting activities, and a variety of other burdens will be imposed on the municipal fisc. If you do not at least attempt to give weight to these matters, you will be better off writing no report at all.

In summary, I believe your economic analyst has not done an incisive piece of work, perhaps because he has been very much misled by the Redevelopment Agency's studies. In an undergraduate economics course, the grade would be a C-. San Franciscans are nice people. They deserve better.

Very, truly yours,



Gerald A. Wright

GAW:slp

